

November 18, 2011

Mr. Len Zintak On-Scene Coordinator US Environmental Protection Agency Region 5 77 West Jackson Boulevard (SE-5J) Chicago, IL 60604-3507

**Subject:** Bautsch-Gray Mine Site

Jo Daviess County, Illinois

Technical Direction Document No. S05-0001-0911-035

Document Control No. 874-2A-ASJZ Work Order No. 20405.012.001.0874.00

Dear Mr. Zintak:

Under Technical Direction Document (TDD) No. S05-0001-0911-035, the United States Environmental Protection Agency (U.S. EPA) tasked the Weston Solutions, Inc. (WESTON®), Superfund Technical Assessment and Response Team (START) to provide engineering support and oversight of removal activities at the Bautsch-Gray Mine Site in Jo Daviess County, Illinois (the Site). The removal activities were conducted over 1 year during the following time periods: from approximately September 9 to November 9, 2010; from July 6 to August 30, 2011; and from September 19 to 23, 2011. Removal activities consisted of the removal of lead- and arsenic-contaminated soil at a residential property and construction activities at the mine property to stabilize mine tailings and control surface water runoff. Additional removal activities tentatively are planned for 2012.

This letter report discusses the Site description, Site background, removal activities to date, and presents a summary of the removal activities.

#### **SITE DESCRIPTION**

The Site is located between 745 and 800 South Blackjack Road in Jo Daviess County, Illinois (**Figure 1** in **Attachment A**). The Site is located approximately 4 miles south of downtown Galena, Illinois, and includes a former Bautsch-Gray lead and zinc mine property that occupies approximately 55 acres, a residential property located at 746 South Blackjack Road that occupies approximately 5 acres, and a horseshoe-shaped retention area containing mine tailings located at 798 South Blackjack Road that occupies approximately 4.8 acres (**Figure 2** in **Attachment A**). The Site is located in a rural, agricultural, and residential area. The Mississippi River is located approximately 2 miles west of the Site. The meridian coordinates of the approximate center of the mine tailings pile at the Site are 42° 21' 26.72" North latitude and 90° 23' 54.85" West longitude.



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#### SITE BACKGROUND

The Bautsch-Gray Mine was an operational lead and zinc mine from the 1850s until operations ceased in 1975. Since then, tailings from the mine property have continued to erode and migrate toward residential properties, wetlands, and fisheries.

After large rain events in August 2009 and again in July 2010, contaminated mine tailings were flushed from the main tailings pile across South Blackjack Road, onto the residential property at 746 South Blackjack Road, and into the horseshoe-shaped area at 798 South Blackjack Road. According to the Jo Daviess County Highway Department, this problem has apparently been frequent during rainy seasons over the last several years. Vehicles that travel on South Blackjack Road create and disperse airborne dust that originates from mine tailings residue on and near the road.

During the week of October 6 through 8, 2009, U.S. EPA and WESTON START conducted a site assessment (SA) at the Bautsch-Gray Mine Site. During the SA, Site soils were field screened using an x-ray fluorescence (XRF) instrument (InnovX) and 36 surface soil samples were collected. Residential well samples and surface water samples of runoff also were collected. U.S. EPA identified several areas of contaminated soil and mine tailings with lead and arsenic concentrations exceeding the regulatory removal action level of 1,200 parts per million (ppm) for lead and the Agency for Toxic Substances and Disease Registry (ATSDR) screening level of 25 ppm for arsenic. The areas exceeding the action and screening levels included around and on the mine tailings pile, the former tailings pond known as the horseshoe-shaped area, in and around ditches along South Blackjack Road, and on the adjacent residential property at 746 South Blackjack Road. The residential well water sample collected from 746 South Blackjack Road contained lead at a concentration exceeding the U.S. EPA Maximum Contaminant Level (MCL) for drinking water of 0.015 milligram per liter (mg/L).

An action memorandum was signed on May 17, 2010, authorizing a removal action at the Site.

Before removal activities began at the Site, the potentially responsible parties (PRP) for the Site contracted the installation of a reverse osmosis (RO) drinking water filtration system for the private well at the residence located at 746 South Blackjack Road under an Administrative Order by Consent (AOC). Filter system installation was completed in July 2010, and operation and maintenance of the system by the PRPs will continue for 2 years.

## **REMOVAL ACTIVITIES**

This section describes the removal activities conducted at the residence at 746 South Blackjack Road, construction activities conducted in 2010 and 2011 at the mine property, air monitoring and sampling activities, and residential well sampling activities. **Attachment B** contains a photographic log of the all activities conducted at the site during the period covered in this report.

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## Removal Activities at 746 South Blackjack Road

U.S. EPA, WESTON START, and LATA-Kemron, the Emergency and Rapid Response Services (ERRS) contractor, mobilized to the Site on September 9, 2010, to begin removing mine tailings and impacted soil from the residential property at 746 South Blackjack Road. The residential removal cleanup levels were established at 400 ppm for lead and 25 ppm for arsenic. The PRPs had installed temporary perimeter safety fencing around the property to restrict Site access prior to construction activities while allowing the property owner access to the residence.

On September 14, 2010, excavation of contaminated soil began. The ERRS contractor used excavators to load soil into dump trucks. **Figure 3** in **Attachment A** shows the areas excavated and the approximate depths of the excavated areas. Soil was excavated down to 6 to 18 inches below ground surface (bgs). Work around several large trees was completed using hand-held shovels in order to preserve the trees and their associated root systems. Under the gravel driveway northwest of the residence, a large water well (4-foot-diameter and 32.5 feet deep) was uncovered during excavation. The Jo Davies County Health Department was notified, and a representative was on site during well abandonment procedures, which included filling the well with alternating layers of bentonite and gravel.

WESTON START conducted soil screening and sampling to determine the area and depth of excavation needed for remediation. Site soil was field screened using an XRF instrument, the Innov-X Alpha Model 4000A, to determine metals concentrations. The screening process involved removing any sod layer present and field screening underlying soil *in situ* using the XRF instrument.

Clean backfill was placed over the excavated areas to serve as a barrier to direct contact exposure and to greatly reduce migration of contaminants from the area. In some areas, lead levels in soil at 18 inches bgs remained elevated above the residential removal cleanup level of 400 ppm. The ERRS contractor placed plastic barrier fence (orange snow fence) over these areas at 18 inches bgs before backfilling the area with clean soil. The fence was secured with metal stakes as needed. The road shoulder was excavated to only 6 inches bgs to preserve the structural integrity of the roadbed and slope. In some of these areas, plastic barrier fence was installed. **Figure 3** in **Attachment A** shows areas where plastic barrier fence was placed before backfilling.

The impacted soil was transported back across South Blackjack Road to the center of the mine tailings pile. A total of approximately 2,600 cubic yards (325 loads or approximately 700 tons) of contaminated soil and mine tailings was excavated from the residential property at 746 South Blackjack Road on October 8, 2010.

Confirmation soil samples also were collected to verify field screening readings before backfilling. A five-point composite sample was collected from an area of less than 5,000 square feet (ft²) as specified in the U.S. EPA "Superfund Lead-Contaminated Residential Sites

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Handbook." These samples were submitted for total metals laboratory analysis. A total of 30 confirmation soil samples were collected from 746 South Blackjack Road from some of the lettered grids shown on **Figure 3** in **Attachment A**. **Attachment C** presents the confirmation soil sampling results.

During excavation, the roadway and driveway culvert were reconfigured to maintain proper storm water drainage. An existing 18-inch-diameter storm water culvert previously directed rainwater from the main tailings pile under South Blackjack Road and into the road ditch along the residential property. This 18-inch-diameter storm water culvert temporarily was plugged at both ends to prevent mine tailings migration from water runoff entering the residential property. A smaller drainage culvert was found on the residential property during excavation of the driveway. This culvert was removed along with the contaminated soil and mine tailings, and a replacement drainage culvert was installed to maintain property drainage around the driveway.

Excavations were backfilled with clean soil from September 30 to October 12, 2010. Locally-sourced replacement topsoil and backfill were used. Prior to delivery to the Site, the material was tested, and laboratory results confirmed only background levels of metals. At the request of the property owner, the material also was analyzed for pH by a laboratory. The pH was neutral and varied from existing Site soil by less than 1 standard unit. **Attachment D** presents the laboratory results for the backfill. To replace the driveway, crushed gravel was delivered to the Site and spread and compacted over the original driveway area.

Dump trucks delivered clean fill and topsoil to the Site, and heavy equipment compacted it to the original grade. A total of 46 loads or 920 cubic yards of soil was backfilled. To restore grass on the property, grass seed was planted with a protective cover of either loose hay or a hay matting layer. Around the front and north sides of the house, sod was installed. Landscaping activities at 746 South Blackjack Road were completed on October 14, 2010, with periodic watering of grass sod and seed continuing for an additional 2 weeks.

In late July and early August 2011, major storm events caused additional mine tailings to migrate onto the residential property at 746 South Blackjack Road. One storm event on July 27 and 28, 2011, released approximately 13 inches of precipitation in a 12-hour period, which greatly exceeded the 100-year design storm event and caused significant damage to roads and bridges in the Site area as well as to on-site sedimentation ponds. The XRF instrument was used to screen the soil at the residential property, and areas exceeding the removal cleanup levels were discovered in the top layer of the soil. Contaminated soil was excavated from the property, and this work was completed during the last week of August 2011. Landscaping at the property was completed during the week of September 19, 2011.

#### **2010 Construction Activities at the Mine Property**

Before and throughout construction activities at the mine property, WESTON START engineers performed hydrogeological modeling and designed structures to mitigate off-site mine tailings

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migration and to control the release rate of surface water runoff. At the direction of U.S. EPA, the engineering design was developed to control a maximum of a 100-year, 24-hour rainfall event. The original engineering design specified the following:

- 1. Construction of five storm water detention ponds, Ponds 1 though 5, with release rate control discharge pipes and overflow weirs
- 2. Construction of a storm water drainage ditch to divert 50 acres of uphill watershed runoff around the east and north sides of the mine tailings area
- 3. Construction of drainage ditches between storm water detention ponds
- 4. Removal of contaminated soil and repair of the drainage ditch along South Blackjack Road
- 5. Reconfiguration to allow stabilization by vegetation of the mine tailings berm along South Blackjack Road

**Figure 4** in **Attachment A** shows the original engineering design diagram for the Site. This design later was modified in 2011 which is discussed below under 2011 Construction Activities.

Throughout the construction activities, WESTON START conducted engineering design implementation oversight and Site health and safety oversight and assisted with Site documentation (written and photographic documentation) for cost control, cost recovery, and Site restoration purposes. LATA-Kemron, the ERRS contractor, conducted all construction activities. A survey subcontractor frequently was on site to determine pre-existing elevations at the mine property and to ensure that design specifications were being met during construction activities.

In 2010, the construction of detention Ponds 2, 3, 4, and 5 were completed. The construction of each pond included the following: construction of downgradient berms for each pond to specified elevations, compaction and configuration, excavation of mine tailings to the specified design depth and area (if needed), installation of water discharge control stand pipes and outfall pipes, and construction of overflow weirs lined with 6-inch rip rap stone.

The construction of the storm water diversion ditch around the Site also was completed in 2010. **Figure 4** in **Attachment A** shows the original design of the diversion ditch in blue, yellow, green, purple, and brown to depict the different segments of the ditch. The purpose of the original design was to direct clean watershed surface water runoff upgradient of the Site along the perimeter of the mine tailings to the existing drainage ditch on Blackjack Road. In order to accommodate the additional flow in the ditch under South Blackjack Road, the exiting 36-inch-diameter culvert into the horseshoe-shaped area on the west side of South Blackjack Road would have required expansion by installing six additional 36-inch-diameter culverts. Upon field inspection of the area and a survey of the northeast corner of the Site, the design was modified to route the diversion ditch to discharge to the original watershed as shown in **Figure 5** in



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**Attachment A.** This value engineering approach to the design resulted in significant savings by reducing the effort and cost of the project. The construction of the ditch included excavation to the required depth and slope in accordance with the engineering diagrams. The design specified the placement of a geotextile liner and then clean soil with grass in low-slope segments and rip rap stone in higher-slope segments of the ditch to prevent erosion and contact with underlying soil and mine tailings.

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Before and throughout construction activities at the mine property in 2011, WESTON START engineers performed hydrogeological modeling and designed structures. Cross-section diagrams were prepared as needed to assist the ERRS contractor in meeting construction specifications. It was decided to move Pond 1 to the south side of the mine property and west of Pond 5. The move allowed use of the existing topography in the construction of Pond 1. **Figure 5** in **Attachment A** shows the final as-built drawing of the storm water detention ponds, drainage ditches, and culverts at the mine property.

Throughout the construction activities, WESTON START conducted engineering design implementation oversight and Site health and safety oversight and assisted with Site documentation (written and photographic documentation) for cost control, cost recovery, and Site restoration purposes. LATA-Kemron, the ERRS contractor, conducted all construction activities. A survey subcontractor frequently was on site to determine pre-existing elevations at the mine property and to ensure that design specifications were being met during construction activities.

From July 6 to 27, 2011, the construction activities summarized below were completed.

- Construction of storm water retention Pond 1 was started and approximately 50 percent completed. Activities included the excavation of mine tailings to attain the specified depth and area required.
- Reconfiguration of the large berm along South Blackjack Road north of Pond 1 also was initiated and included excavating of tailings along the berm in order to move the berm further back from the roadway.
- The original stand pipe connected to the sub-pavement road culvert in the southwest corner of the Site was removed.
- The 36-inch culvert that runs under South Blackjack Road and empties into the horseshoe-shaped area remained in place to be used as part of the new drainage pathway.
- Excavated native material was field screened using an XRF instrument and stockpiled for future use as topsoil on the reconfigured berm.

On the evening of July 27 and through the morning of July 28, 2011, the Jo Daviess County, Illinois, area was struck by an unprecedented storm that rained over 13 inches of precipitation in a 12-hour period at the Site. This historic rainfall event exceeded the criteria for a 1,000-year,



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12-hour storm event. The stormwater detention ponds were designed for the 100-year, 24-hour storm event. Access to the Site was not possible for most of the day after the storm because of flooded roads and bridges and flooding around the Site. A damage assessment was conducted on the evening of July 28, 2011. The water from this major storm caused significant damage to the berms of Ponds 1, 2, 3, and 4. Pond 5 and the upgradient diversion ditch remained structurally sound and were functioning properly after the storm.

Because of the large storm event and damage to the storm water detention ponds, some engineering design changes were implemented for managing stormwater at the Site. Ponds 3 and 4 were considered to be no longer functional based on their damage. Rather than expend effort to rebuild Ponds 3 and 4, the berms of Ponds 1 and 2 were raised to allow additional storage capacity; specifically, the Pond 1 berm was raised 3 feet and the Pond 2 berm was raised 5 feet. Also, to increase capacity, an additional 12-inch-diameter stand pipe and discharge pipe were installed in Pond 2 and the diameter of the discharge control stand pipe in Pond 1 was increased to 36 inches to allow a higher, controlled release rate from both ponds.

Rather than only installing a berm across the gated Site access road as a continuation of the South Blackjack Road berm as specified in the original plans, an additional storm water detention pond (Pond 6), stand pipe, and culvert were designed and added straddling the access road located across from the residential property and near Blackjack Road. The purpose of this additional pond is to prevent water from overtopping the planned berm, flooding South Blackjack Road, and depositing mine tailings onto the residential property across the street. **Figure 5** in **Attachment A** shows the final as-built drawing of the storm water detention ponds and indicates modeled high-water levels, drainage ditches, and culverts at the mine property. Hydrogeologic modeling was performed using the as-built topographic survey of the Site structures, and the revised design was confirmed to provide control of the 100-year, 24-hour design rainfall event in accordance with U.S. EPA specifications. **Attachment E** contains the results of the hydrogeologic modeling.

From July 28 to August 30, 2011, the construction activities summarized below were completed.

- The damaged berms for Ponds 1 and 2 were repaired. The berm for Pond 1 was raised 3 feet, and the berm for Pond 2 was raised 5 feet.
- A drainage ditch between Ponds 1 and 2 was constructed and lined with rip rap stone.
- The additional 12-inch stand pipe, outfall, and emergency overflow weir for Pond 2 were constructed.
- The construction of Pond 1 was completed, including completion of berm construction, installation of a 36-inch-diameter stand pipe, connection of the stand pipe to the existing 36-inch-diameter culvert that runs under South Blackjack Road, and the construction of an emergency overflow weir.



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- The excavation of mine tailings from Pond 1 to the specified depth and area was completed to the extent possible given budgetary constraints. Although Pond 1 was not excavated completely to the design depth and area, the excavation was sufficient to provide the required storage capacity to control the 100-year design storm event as confirmed by hydrographic modeling using as-built topographic data.
- The construction of Pond 6 was completed, including installation of the berm to the required dimensions and installation of a discharge control stand pipe and outfall pipe to the ditch along South Blackjack Road.
- The slope of the existing berm along Blackjack Road was decreased to design specifications to allow vegetative growth and minimize erosion. The berm then was covered with 6 inches of topsoil.
- Fencing was installed along the Pond 1 berm near South Blackjack Road.

During the week of September 19, 2011, the berm and ditch along South Blackjack Road were hydroseeded using an Illinois Department of Transportation grass seed mix.

#### **Air Monitoring and Sampling Activities**

Throughout earth-moving activities, WESTON START conducted air monitoring and sampling to ensure that (1) airborne particles did not migrate off site and (2) both particulate and metals levels did not pose a risk to Site personnel or nearby residents.

For air monitoring during earth-moving activities, WESTON START used DataRAM units to record and log total particulate levels. In 2010, four DataRAM units were used, and in 2011, two DataRAM units were used. The DataRAM unit locations were based on the location of work activities and wind direction for a particular day. Data from these units was saved and reviewed daily to confirm that particulate levels did not pose a threat to nearby residents or Site workers. The ATSDR set a site-specific action level of 70 micrograms per cubic meter ( $\mu g/m^3$ ) total particulates of a size of 10 micrometers ( $\mu m$ ) or less (PM10). This action level is based on the National Ambient Air Quality Standards for lead and arsenic and on the highest concentrations detected in samples of residential area soil. This action level was not exceeded during the earthmoving activities conducted in 2010 and 2011 at the Site.

For air sampling, WESTON START used four AirCon or SKC air pumps connected to 5-µm polyvinyl chloride (PVC) filters encased in cartridges. The sampling points were positioned on the Site perimeter at locations selected based on different wind directions and Site activities. The filter media were attached to stands in the breathing zone approximately 3 to 5 feet above ground level. The sampling cartridges were submitted for laboratory analysis for total metals (lead and arsenic) and particulates. Results confirmed that metals and particulate levels did not pose a threat to residents or Site workers. **Attachment F** presents the air sampling results.



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#### **Residential Well Sampling Activities**

Water from the residential well at 746 South Blackjack Road was sampled to assess the effectiveness of the RO drinking water filtration system installed by the PRPs. In addition, drinking water wells at other residential properties were sampled in 2010, including the properties at 842 and 861 South Blackjack Road. **Attachment G** contains a table summarizing the residential well water sampling results. Lead, arsenic, cadmium, and copper results all were below U.S. EPA MCLs. The results for pH were lower than the pH range specified under the non-enforceable National Secondary Drinking Water Regulation.

## **SUMMARY**

Significant removal activities conducted in 2010 and 2011 included the following:

- Excavation of lead- and arsenic-contaminated soil at a residential property at 746 South Blackjack Road and completion of landscaping after excavation activities
- Construction activities at the mine property to stabilize mine tailings and control surface water runoff for a maximum of a 100-year, 24-hour rainfall event, including the following:
  - Construction of storm water detention ponds, including installation of discharge control stand pipes, outfall culverts, ditches between ponds, and emergency overflow weirs
  - Construction of an upgradient storm water diversion ditch on the north and east sides of the mine tailings area
  - Removal of contaminated soil and repair of the drainage ditch along South Blackjack Road
  - Reconfiguration and seeding of the berm along South Blackjack Road to prevent mine tailings from washing onto South Blackjack Road during storm events.

Additional removal activities tentatively are planned for 2012 to address the horseshoe-shaped area at 798 South Blackjack Road, clean up residual contamination in the Blackjack Road ditches, and address any Site repairs. If you have any questions or comments regarding this report or need additional copies, please contact WESTON START at (312) 424-3339.

Very truly yours,

Lisa Lwazke

WESTON SOLUTIONS, INC.

Lisa Graczyk

WESTON START Project Manager



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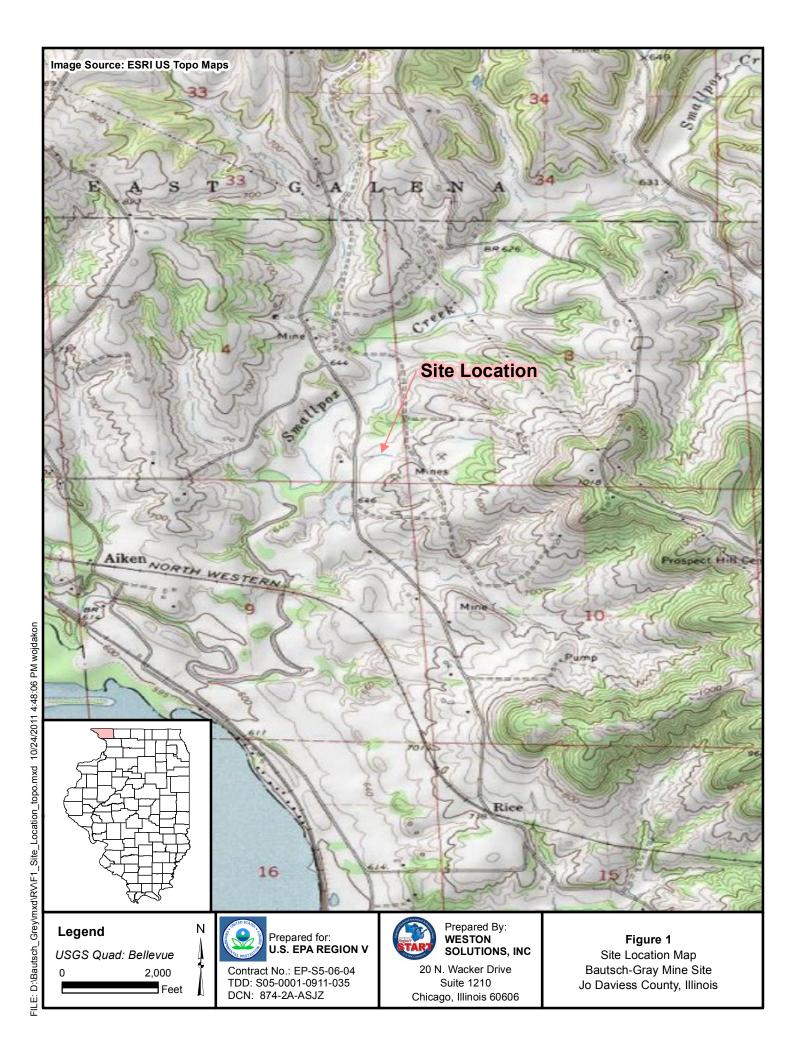
Bautsch-Gray Mine Site November 18, 2011

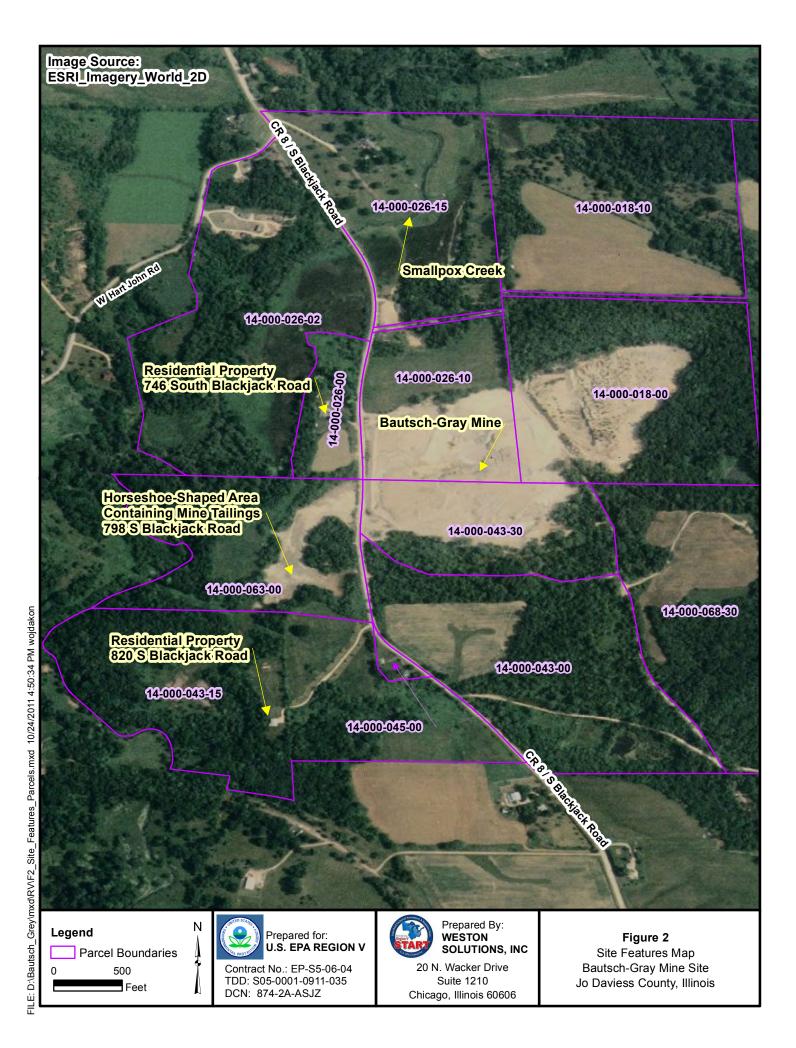
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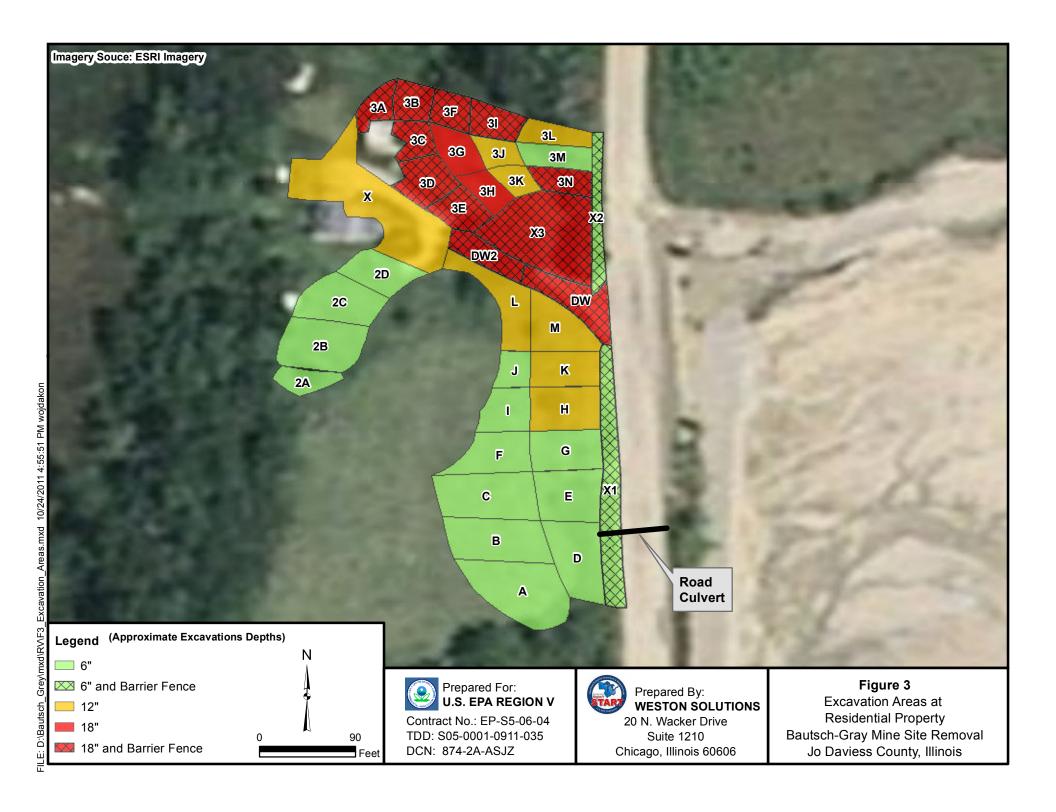
- A Figures
- B Photographic Documentation
- C Confirmation Soil Sampling Results
- D Soil Backfill Results
- E Hydrogeological Modeling Results
- F Air Sampling Results
- G -Residential Well Water Sampling Results

cc: WESTON START DCN File

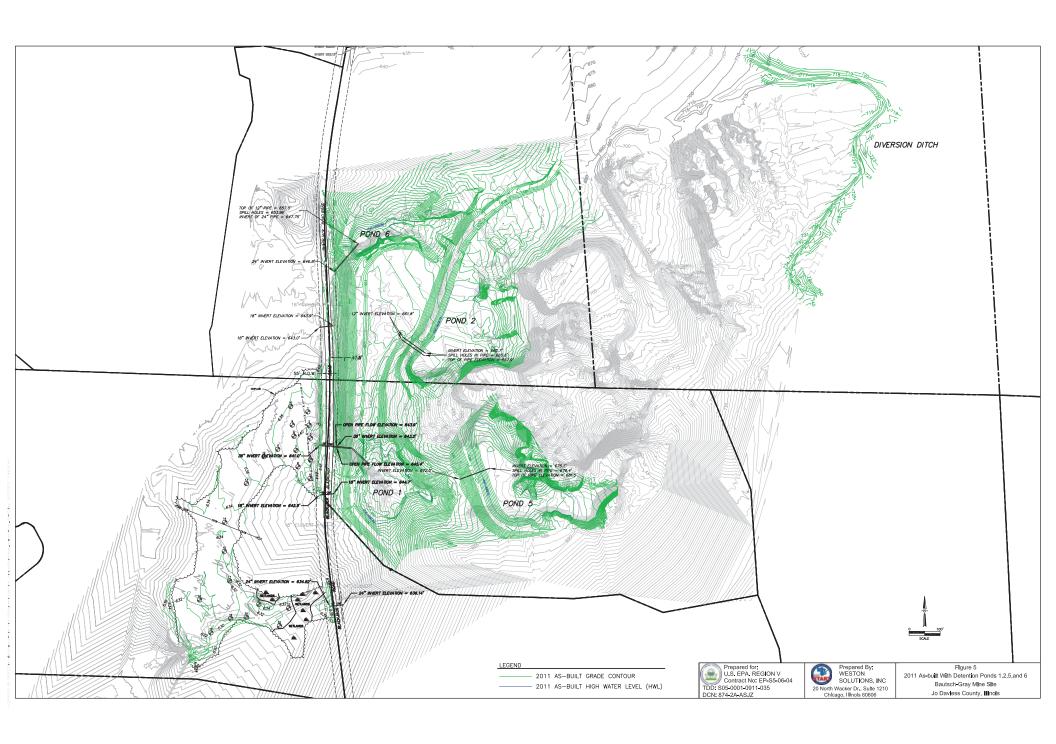
# ATTACHMENT A FIGURES







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# ATTACHMENT B PHOTOGRAPHIC DOCUMENTATION



Photograph No.: 1 Date: 9/17/10

**Direction:** Northeast **Photographer:** Jeff Bryniarski

Subject: Loading of impacted soil and tailings into dump truck for off-site transport



Site: Bautsch-Gray Mine Site

Photograph No.: 2 Date: 9/25/10

Direction: North Photographer: Jeff Bryniarski

**Subject:** Excavation of impacted soil from area south of residence at 746 South Blackjack Road I:\WO\START3\874\43878ATT-B.DOC B-1 874-2A-ASJZ



Photograph No.: 3 Date: 9/28/10

**Direction:** East **Photographer:** Jeff Bryniarski

Subject: Excavation of west end of driveway at 746 South Blackjack Road



Site: Bautsch-Gray Mine Site

Photograph No.: 4 Date: 9/27/10

**Direction:** East **Photographer:** Jeff Bryniarski

Subject: Removal of vegetation from northeast corner of mine tailings pile



**Photograph No.:** 5 **Date:** 9/27/10

**Direction:** East **Photographer:** Jeff Bryniarski **Subject:** Excavation of impacted soil and tailings from area north of driveway at 746 South

Blackjack Road



Site: Bautsch-Gray Mine Site

Photograph No.: 6 Date: 9/28/10

**Direction:** Northeast **Photographer:** Jeff Bryniarski **Subject:** Excavation of impacted soil and tailings from area near South Blackjack Road



Photograph No.: 7 Date: 9/28/10

**Direction:** Southeast **Photographer:** Jeff Bryniarski

Subject: Excavation of impacted soil and spreading and shaping of backfill



Site: Bautsch-Gray Mine Site

Photograph No.: 8 Date: 10/1/10

**Direction:** East **Photographer:** Jeff Bryniarski

Subject: Installation of barrier fencing over impacted area before backfilling



Photograph No.: 9 Date: 10/1/10

**Direction:** West **Photographer:** Jeff Bryniarski **Subject:** Dumping of backfill material over excavated area north of driveway at 746 South

Blackjack Road



Site: Bautsch-Gray Mine Site

Photograph No.: 10 Date: 10/4/10

**Direction:** East **Photographer:** Jeff Bryniarski

Subject: Spreading of new crushed stone for driveway surface after excavation



Photograph No.: 11 Date: 9/15/10

**Direction:** West **Photographer:** Jeff Bryniarski **Subject:** Air monitoring and sampling station near residence managed by WESTON START

during site work



Site: Bautsch-Gray Mine Site

Photograph No.: 12 Date: 9/15/10

**Direction:** Overhead **Photographer:** Len Zintak **Subject:** WESTON START field screening site soil using Innov-X XRF instrument



Photograph No.: 13 Date: 10/7/10

**Direction:** Northeast **Photographer:** Jeff Bryniarski **Subject:** ERRS contractor installing barrier fencing and excavating east end of driveway at 746

South Blackjack Road



Site: Bautsch-Gray Mine Site

Photograph No.: 14 Date: 10/13/10

**Direction:** East **Photographer:** Marcus Muccianti

**Subject:** Spreading of grass seed and hay over backfilled area



Photograph No.: 15 Date: 10/14/10

**Direction:** North **Photographer:** Marcus Muccianti **Subject:** Remediated area south of residence at 746 South Blackjack Road after excavation,

backfill, and seeding



Site: Bautsch-Gray Mine Site

Photograph No.: 16 Date: 10/14/10

**Direction:** South **Subject:** Remediated area along South Blackjack Road after excavation, backfill, and seeding

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Site: Bautsch-Gray Mine Site Photograph No.: 17

**Direction:** East **Photographer:** Marcus Muccianti **Subject:** Remediated area near residence at 746 South Blackjack Road after excavation, backfill,

**Date:** 10/14/10

and sod installation



Site: Bautsch-Gray Mine Site

Photograph No.: 18 Date: 10/18/10

**Direction:** Southeast **Photographer:** Jeff Bryniarski **Subject:** ERRS contractor spreading rip rap stone as part of diversion ditch construction



Photograph No.: 19 Date: 10/20/10

**Direction:** West **Photographer:** Jeff Bryniarski

**Subject:** Installation of Pond 3 stand pipe



Site: Bautsch-Gray Mine Site

Photograph No.: 20 Date: 10/25/10

Direction: East Photographer: Jeff Bryniarski

**Subject:** Installation of rip rap stone on Pond 3 overflow weir



Photograph No.: 21 Date: 10/20/10

**Direction:** East **Photographer:** Len Zintak

Subject: Compaction of tailings material on top of Pond 3 drainage pipe



Photograph No.: 22 Date: 11/8/10

**Direction:** South **Photographer:** Len Zintak

**Subject:** Pond 2 with drainage pipe and crushed stone



Site: Bautsch-Gray Mine Site

Photograph No.: 23 Date: 11/8/10

**Direction:** West **Photographer:** Len Zintak

Subject: Pond 4 with drainage pipe, crushed stone, and warning sign posted



Photograph No.: 24 Date: 7/13/11

**Direction:** Southwest **Photographer:** Jeff Bryniarski

Subject: Excavation of tailings inside Pond 1



Site: Bautsch-Gray Mine Site

Photograph No.: 25 Date: 7/15/11

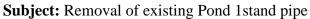
**Direction:** Southwest **Photographer:** Jeff Bryniarski

**Subject:** ERRS contractor field testing compaction of Pond 1 road berm



Photograph No.: 26 Date: 7/16/11

**Direction:** West **Photographer:** Jeff Bryniarski





Site: Bautsch-Gray Mine Site

Photograph No.: 27 Date: 7/18/11

**Direction:** Southwest **Photographer:** Jeff Bryniarski

 $\textbf{Subject:} \ Excavation \ and \ loading \ of \ tailings \ inside \ Pond \ 1$ 



Photograph No.: 28 Date: 7/19/11

**Direction:** Northeast **Photographer:** Jeff Bryniarski

Subject: WESTON START air monitoring and sampling near Pond 1



Site: Bautsch-Gray Mine Site

Photograph No.: 29 Date: 7/27/11

**Direction:** Northeast **Photographer:** Jeff Bryniarski

**Subject:** Dumping of excavated tailings near Pond 5 I:\WO\START3\874\43878ATT-B.DOC B-15



Photograph No.: 30 Date: 7/27/11

**Direction:** Northwest **Photographer:** Jeff Bryniarski

Subject: Installation of rip rap stone on Pond 1 overflow weir



Site: Bautsch-Gray Mine Site

Photograph No.: 31 Date: 7/28/11

**Direction:** East **Photographer:** Jeff Bryniarski

Subject: Pond 1 overflow weir destruction after flash flood rain event



Photograph No.: 32 Date: 7/28/11

**Direction:** Southeast **Photographer:** Jeff Bryniarski

Subject: Diversion ditch full of water and functional after flash flood rain event



Site: Bautsch-Gray Mine Site

Photograph No.: 33 Date: 7/28/11

**Direction:** Southeast **Photographer:** Jeff Bryniarski

Subject: Pond 5 full of water and functional after flash flood rain event



Photograph No.: 34 Date: 8/1/11

**Direction:** West **Photographer:** Jeff Bryniarski

Subject: Lawn of 746 South Blackjack Road after flash flood rain event



Site: Bautsch-Gray Mine Site

Photograph No.: 35 Date: 8/3/11

**Direction:** East **Photographer:** Jeff Bryniarski

Subject: ERRS contractor repairing and improving Pond 2 drainage piping



Photograph No.: 36 Date: 8/6/11

**Direction:** North **Photographer:** Jeff Bryniarski

Subject: Installation of drainage piping extension inside Pond 1



Site: Bautsch-Gray Mine Site

**Photograph No.:** 37 **Direction:** Southeast

**Subject:** Repair of liner on Pond 1 roadway berm

Subject: Repair of finer on Pond 1 roadway berm I:\WO\START3\874\43878ATT-B.DOC B-19

**Date:** 8/10/11

Photographer: Jeff Bryniarski



Photograph No.: 38 Date: 8/10/11

**Direction:** Southeast **Photographer:** Jeff Bryniarski

Subject: Excavation and shaping of Pond 1 roadway berm



Site: Bautsch-Gray Mine Site

Photograph No.: 39 Date: 8/16/11

**Direction:** Southeast **Photographer:** Jeff Bryniarski

Subject: Spreading and shaping of backfill on berm along South Blackjack Road

I:\WO\START3\874\43878ATT-B.DOC B-20 874-2A-ASJZ



Photograph No.: 40 Date: 8/16/11

**Direction:** South **Photographer:** Jeff Bryniarski

Subject: Excavation of drainage ditch from Pond 2 to Pond 1



Site: Bautsch-Gray Mine Site

Photograph No.: 41 Date: 8/18/11

**Direction:** Southeast **Photographer:** Jeff Bryniarski

Subject: Excavation of 746 South Blackjack Road property after flash flood rain event



Photograph No.: 42 Date: 8/22/11

**Direction:** Northwest **Photographer:** Jeff Bryniarski **Subject:** Excavation of 746 South Blackjack Road property after flash flood rain event



Site: Bautsch-Gray Mine Site

Photograph No.: 43 Date: 8/26/11

**Direction:** Northeast **Photographer:** Jeff Bryniarski

**Subject:** Roadway berm extension with additional drainage outflow pipe



Photograph No.: 44 Date: 8/29/11

**Direction:** Southwest **Photographer:** Jeff Bryniarski

Subject: Drainage ditch from Pond 2 outflow to Pond 1



Site: Bautsch-Gray Mine Site

Photograph No.: 45 Date: 8/29/11

**Direction:** South **Photographer:** Jeff Bryniarski

Subject: Pond 1 berm fencing along South Blackjack Road

# ATTACHMENT C CONFIRMATION SOIL SAMPLING RESULTS



Work Order No.: 10J0038

October 5, 2010

LATA-Kemron Remediation LLC - Albuquerque, N 2424 Louisiana Blvd. NE, Suite 400 Albuquerque, NM 87110

Re: Bautsch - Gray Mine Site

Dear Vernon Giles:

Microbac Laboratories, Inc. - Chicagoland Division received 2 sample(s) on 10/4/2010 9:10:00AM for the analyses presented in the following report as Work Order 10J0038.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please feel free to contact us.

Sincerely,

Microbac Laboratories, Inc.

Deborah Griffiths

Senior Project Manager



Date:

## **WORK ORDER SAMPLE SUMMARY**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**Project:** Bautsch - Gray Mine Site

Lab Order: 10J0038

Lab Sample ID	Client Sample ID	Tag Number	<b>Collection Date</b>	Date Received
10J0038-01	BG-Soil YD01 - 100110		10/01/2010 14:00	10/4/2010 9:10:00AM
10J0038-02	BG-Soil YD02 - 100110		10/01/2010 14:10	10/4/2010 9:10:00AM

Tuesday, October 5, 2010



Analytical Results Date: Tuesday, October 5, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site
Client Sample ID: BG-Soil YD01 - 100110

 Client Sample ID:
 BG-Soil YD01 - 100110
 Work Order/ID:
 10J0038-01

 Sample Description:
 Sampled:
 10/01/2010
 14:00

 Matrix:
 Solid
 Received:
 10/04/2010
 14.00

Analyses	ΑT	Result	RL	Qual	Units	DF	Analyzed
		Method: SW-846 9	045C			An	nalyst: CS
pH					Р	rep Date/	Time: 10/04/2010 14:00
pH	Α	7.76	2.00	ļ.	H Units	1	10/04/2010 14:15



Analytical Results Date: Tuesday, October 5, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site
Client Sample ID: BG-Soil YD02 - 100110

 Client Sample ID:
 BG-Soil YD02 - 100110
 Work Order/ID:
 10J0038-02

 Sample Description:
 Sampled:
 10/01/2010 14:10

Matrix: Solid Received: 10/04/2010 9:10

Analyses AT Result RL Qual Units DF Analyzed Method: SW-846 9045C Analyst: CS рΗ Prep Date/Time: 10/04/2010 14:00 A 7.70 2.00 pH Units 10/04/2010 14:15 pН



### FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

NA = Not Analyzed mg/L = Milligrams per Liter (

mg/L = Milligrams per Liter (ppm) mg/Kg = Milligrams per Kilogram (ppm)

U = Undetected

J = Analyte concentration detected between RL and MDL (Metals / Organics)

B = Detected in the associated method Blank at a concentration above the routine PQL/RL

D = Dilution performed on sample

ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)

E = Value above quantitation range

H = Analyte was prepared and/or analyzed outside of the analytical method holding time

= Matrix Interference

R = RPD outside accepted recovery limits
S = Spike recovery outside recovery limits

Surr = Surrogate
DF = Dilution Factor

#### **ANALYTE TYPES**

A,B = Target Analyte
I = Internal Standard
M = Summation Analyte

S = Surrogate

T = Tentatively Identified Compound (TIC, concentration estimated)

#### **QC SAMPLE IDENTIFICATIONS**

MBLK	=	Method Blank	ICSA	=	Interference Check Standard "A"
DUP	=	Method Duplicate	<b>ICSAB</b>	=	Interference Check Standard "AB"
LCS	=	Laboratory Control Sample	LCSD	=	Laboratory Control Sample Duplicate
BS	=	Method Blank Spike	BSD	=	Method Blank Spike Duplicate
MS	=	Matrix Spike	MSD	=	Matrix Spike Duplicate
ICB	=	Initial Calibration Blank	CCB	=	Continuing Calibration Blank
ICV	=	Initial Calibration Verification	CCV	=	Continuing Calibration Verification
PDS	=	Post Digestion Spike	SD	=	Serial Dilution
OPR	=	Ongoing Precision and Recovery Stand	ard		

#### CERTIFICATIONS

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

Illinois EPA for the analysis wastewater and solid waste in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (accreditation #100435)

Illinois Department of Public Health for the microbiological analysis of drinking water (registry #1755266)

Indiana DEM approved support laboratory for solid waste and wastewater analyses

Indiana SDH for the chemical analysis of drinking water (lab #C-45-03)

Indiana SDH for the microbiological analysis of drinking water (lab #M-45-8)

Kentucky DEP for the chemical analysis of drinking water (lab #90147)

Kentucky EPPC for the analysis of samples applicable to the Underground Storage Tank program (lab #75)

\*New York SDH for the chemical analysis of air and emissions (lab #11909)

North Carolina DENR for the environmental analysis for NPDES effluent, surface water, groundwater, and pretreatment regulations(certificate #597)

Tennessee DEC for the chemical analysis of drinking water (lab #04017)

Wisconsin DNR for the chemical analysis of wastewater and solid waste (lab #998036710)



## COOLER INSPECTION

Client Name: LATA-Ke	emron Remediation LLC - A	Albuquerque. NM		Date/	Time Rec	Date: eived:		ay, October 5, 20 2010 09:10	10	
Work Order Number:	10J0038			Recei	ved by:	Ken Sr	nith			
Checklist completed by:	10/4/2010 9:20:00AM	Ken Smith			wed by:	10/5/2		DDG		
checkist completed by.	10/4/2010 9.20.00AWI		-	110 110	wed by.	10/3/2	2010	IDDG		
		Carrier Name:	FedEx							
C	Cooler ID: Default Cooler			Con	tainer/Te	mp Blank	Tempe	erature: 18.00	°C	
After-Hour Arrival?				Yes	П	No	$\overline{\mathbf{A}}$			
Shipping container/coo	ler in good condition?			Yes	$\overline{\checkmark}$	No		Not Present		
Custody seals intact or	n shipping container/cooler?	)		Yes		No		Not Present	$\checkmark$	
Custody seals intact or	n sample containers?			Yes		No		Not Present	$\checkmark$	
COC present?				Yes	$\checkmark$	No				
COC included sufficien	t client identification?			Yes	$\checkmark$	No	Ш			
COC included sufficien	t sample collector informati	on?		Yes	$\checkmark$	No	Ш			
COC included a sample	•			Yes	$\checkmark$	No	Ш			
COC agrees with samp				Yes	$\checkmark$	No	Ш			
COC identified the app	•			Yes	$\checkmark$	No	Ш			
COC included date of o				Yes	$\checkmark$	No	Ц			
COC included time of o				Yes	$\checkmark$	No	Ц			
	ropriate number of contained	ers?		Yes	$\checkmark$	No	Ш			
Samples in proper conf				Yes	$\checkmark$	No	Ц			
Sample containers inta				Yes	$\checkmark$	No	Ш			
Sufficient sample volun				Yes		No	Ш			
All samples received w				Yes	$\checkmark$	No	Ц			
	erved, are the preservative	s identified?		Yes	$\checkmark$	No	Ш			
COC included the requ	ested analyses?			Yes	$\checkmark$	No	Ш			
	If No, adjuste	d by?								
	, <del></del>									
COC signed when relin	equished and received?			Yes		No	П			
Samples received on ic				Yes	H	No				
Samples properly pres				Yes		No	Ħ			
	samples have zero headspa	ace?		Yes		No	□N-	o VOA vials subi	mitted	✓
Cooler Comments:										
	ION (excluding After-Hour I	Receipt) REQUIRES	CLIEN	ΓNOTI	FICATI	ON.			· <del></del>	
	lient Sample ID	Comments								
10J0038-01 B	G-Soil YD01 - 100110									
1010038-02 B	G-Soil VD02 - 100110									



## **Analytical QC Summary**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**Wet Chemistry - Quality Control** 

Work Order: 10J0038

Project: Bautsch - Gray Mine Site

**Batch:** B006751

рΗ

Sample ID: Source:	Duplicate (B006751-DUP1) 10J0041-01	Metho	od: SW-8	46 9045C		Prepped: Analyzed:		1/2010 1 1/2010 1	
Analyte	Result	Limit Un	its Leve	el Result	%REC	Limits	RPD	Limit	Qual
pH	8.800	2.00 pH	Units	8.920			1.35	20	

es	Samples	112	[] 250 West	st 84t	84th Drive		5713 W	[] 5713 West 85th Street	et et		Chair	Chain of Custody Record	dy Recor	
Submitted to:	ted to:	≪ r	derrilly.	me, =	Merillylle, IN 46410		Indian	Indianapolis, IN 46278	378		46	3		
		ans Li	er: 21 ax: 21	Tel: 219-769-8378 Fax: 219-769-1664	8378 1664		Fax: 31	Tel: 317-8/2-13/5 Fax: 317-872-1379				je je		
											Instru	Instructions on back	×	-
Client Name LATA - KEMEDY		and the second	Project		シーモのジ	BANTSCH-GREY MINE		NZ Z	Tumac	Turnaround Time			Report Type	
Address 2424 Levisiand BLVD NE	8 17	्०∤	Location		SALENA	7.7	000000000000000000000000000000000000000		[] Routine (7 working days)	king days)		[] Resulfs Only	<u>≥</u>	X I evel II
City, State, Zip AUSURVERRUE, NM 87	110	bda.	PO #					M W.B.U	KRUSH* (notify lab)	(qe)		E Feve		/ / []Level III CLP-like
Contact VER		-	)ompli	ance N	fonitoring?	Compliance Monitoring? [] Yes(1) N/No	N.V.		1 77	TAT	orasics (Shashining)	[] Level IV	II Lev	[] Level IV CLP-like
Telephone # 404 - 353 - 0337			(1)Agency/	cy/Program	ram		/	March Constitution of the	ner)	(needed by)				
Sampled by (PRINT) JEFF BRYNINGER			Sar	npler	Sampler Signature	THE STATE OF THE S	M			Sampler F	hone #	Sampler Phone # 7c8 - 284-	- 2490	
Send Report via [] Mail [] Telephone [] I	[] Fax (fax #)	∓ (#						Xe-m	Ke-mail (address) エモル・スタグト・イヤンジ	J. VERTE .	387NIA		@ WESTON SOUTHOUS	Mays. Con
* Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify) *** Preservative Types: (1) HNO3, (2) H2SO4, (3) HCI, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved	Oil, Wipe (3) HCi,	), Drink (4) Nar	ding W.	ater (D ) Zinc /	W), Ground 4cetate, (6)	Iwater (GW Methanol, (	), Surfac (7) Sodil	to Water (SW)	), Waste W; 8) Sodium	ater (WW), Thiosulfate	Other (sp., (9) Hexa	ecify) ine, (U) Unpre	served	
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Client Sample ID	*xix	q	iisodu	ıeq	iloD e	lloO ə	tainer	Preservative Types **	He					
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BG-501LYD01-100110	N	×		Ť	10/01/10	Z 50	7	Nove	×					0/
89-50114002-100110	S	×		<u> </u>	10/01/10	Z (0	7	No NE	X					20
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Work Order No.: 1010985

September 30, 2010

LATA-Kemron Remediation LLC - Albuquerque, N 2424 Louisiana Blvd. NE, Suite 400 Albuquerque, NM 87110

Re: Bautsch - Gray Mine Site

Dear Vernon Giles:

Microbac Laboratories, Inc. - Chicagoland Division received 11 sample(s) on 9/29/2010 9:30:00AM for the analyses presented in the following report as Work Order 10I0985.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please feel free to contact us.

Sincerely,

Microbac Laboratories, Inc.

Melissa A. Hamer-Bailey, CHMM

Regulatory Specialist



## **WORK ORDER SAMPLE SUMMARY**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**Project:** Bautsch - Gray Mine Site

**Lab Order:** 1010985

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
1010985-01	BG-Soil H - 092810		09/28/2010 15:45	9/29/2010 9:30:00AM
1010985-02	BG-Soil 3F - 092810		09/28/2010 15:50	9/29/2010 9:30:00AM
1010985-03	BG-Soil 3F - 092810D		09/28/2010 15:50	9/29/2010 9:30:00AM
1010985-04	BG-Soil 3G - 092810		09/28/2010 15:55	9/29/2010 9:30:00AM
1010985-05	BG-Soil 3H - 092810		09/28/2010 16:00	9/29/2010 9:30:00AM
1010985-06	BG-Soil 3I - 092810		09/28/2010 16:05	9/29/2010 9:30:00AM
1010985-07	BG-Soil 3J - 092810		09/28/2010 16:10	9/29/2010 9:30:00AM
1010985-08	BG-Soil 3K - 092810		09/28/2010 16:15	9/29/2010 9:30:00AM
1010985-09	BG-Soil 3L - 092810		09/28/2010 16:20	9/29/2010 9:30:00AM
1010985-10	BG-Soil 3M - 092810		09/28/2010 16:25	9/29/2010 9:30:00AM
1010985-11	BG-Soil 3N - 092810		09/28/2010 16:30	9/29/2010 9:30:00AM

Thursday, September 30, 2010

Date:



CASE NARRATIVE Date: Thursday, September 30, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Project: Bautsch - Gray Mine Site

**Lab Order:** 1010985

The Matrix Spike and Matrix Spike Duplicate performed on the BG-Soil 3F - 092810D sample failed the accuracy criteria for Lead. This bias is due to the high indigenous analyte concentration (relative to the spike amount).



Analytical Results Date: Thursday, September 30, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BG-Soil H - 092810
 Work Order/ID:
 1010985-01

 Sample Description:
 Sampled:
 09/28/2010
 15:45

 Matrix:
 Solid
 Received:
 09/29/2010
 9:30

Analyses AT Result RL Qual Units DF Analyzed

 Method: SW-846 6010B
 Analyst: SA

 Total Metals by ICP
 Prep Method: SW846 3050B
 Prep Date/Time: 09/29/2010 10:26

 Arsenic
 A
 24
 0.51
 mg/Kg dry
 1
 09/29/2010 15:11

 Lead
 A
 480
 0.38
 mg/Kg dry
 1
 09/29/2010 15:11

 Method: SM2540B Rev 18
 Analyst: arcel

 Percent Solids
 Prep Date/Time: 09/29/2010 17:29

 Percent Solids
 A 86
 0.10
 wt%
 1
 09/30/2010 5:30



**Analytical Results** Date: Thursday, September 30, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**Client Project:** Bautsch - Gray Mine Site

Client Sample ID: BG-Soil 3F - 092810 Work Order/ID: 1010985-02

**Sample Description:** Sampled: 09/28/2010 15:50

Matrix: Solid 09/29/2010 9:30 Received:

A	nalyses	ΑT	Result	RL	Qual	Units	DF	Analyzed
			Method: SW-846 60	010B			An	alyst: <b>SA</b>
To	otal Metals by ICP	Р	rep Method: SW846 30	)50B		F	Prep Date/	Time: 09/29/2010 10:26
	Arsenic	Α	28	0.5	1	mg/Kg dry	1	09/29/2010 15:17
	Lead	Α	410	0.4	)	mg/Kg dry	1	09/29/2010 15:17

		Method	:SM2540B Rev 18	8		An	alyst:arcel
Percent Solids						Prep Date/	Time: 09/29/2010 17:29
Percent Solids	Α	86		0.10	wt%	1	09/30/2010 5:30



**Analytical Results** Date: Thursday, September 30, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**Client Project:** Bautsch - Gray Mine Site Client Sample ID: BG-Soil 3F - 092810D

Work Order/ID: **Sample Description:** Sampled: 09/28/2010 15:50

Solid 09/29/2010 9:30 Matrix: Received:

Α	nalyses	ΑT	Result	RL	Qual U	nits	DF	Analyzed
			Method: SW-846 6	010B			Ar	nalyst: <b>SA</b>
T	otal Metals by ICP	F	Prep Method: SW846 30	050B		Pr	rep Date/	Time: 09/29/2010 10:26
	Arsenic	Α	35	0.57	mg/Kg	dry	1	09/29/2010 15:22
	Lead	Α	530	0.43	mg/Kg	dry	1	09/29/2010 15:22

	ivietnoa. Sivi254	UB Rev 18		Al	lalyst. arcel
Percent Solids			Pr	ep Date/	Time: 09/29/2010 17:29
Percent Solids	A 87	0.10	wt%	1	09/30/2010 5:30

1010985-03



Analytical Results Date: Thursday, September 30, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site
Client Sample ID: BG-Soil 3G - 092810

 Client Sample ID:
 BG-Soil 3G - 092810
 Work Order/ID:
 1010985-04

 Sample Description:
 Sampled:
 09/28/2010 15:55

 Matrix:
 Solid

 Received:
 09/29/2010
 9:30

A	nalyses	ΑT	Result	RL	Qual	Units	DF	Analyzed
			Method: SW-846 60	010B			Ar	nalyst: <b>SA</b>
To	otal Metals by ICP	F	Prep Method: SW846 30	)50B		Р	rep Date/	Time: 09/29/2010 10:26
	Arsenic	Α	19	0.54		mg/Kg dry	1	09/29/2010 15:39
	Lead	Α	460	0.41		mg/Kg dry	1	09/29/2010 15:39

			Method: SM2540B		Analyst: arcel			
Percent Solids						Prep Date/Time: 09/29/2010 17:29		
	Percent Solids	Α	92	0.10	wt%	1	09/30/2010 5:30	



Analytical Results Date: Thursday, September 30, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BG-Soil 3H - 092810
 Work Order/ID:
 1010985-05

 Sample Description:
 Sampled:
 09/28/2010 16:00

 Matrix:
 Solid
 Received:
 09/29/2010
 9:30

Aı	nalyses	ΑT	Result	RL	Qual	Units	DF	Analyzed		
		Method: SW-846 6010B				Analyst: <b>SA</b>				
Total Metals by ICP		Prep Method: SW846 3050B				Prep Date/Time: 09/29/2010 10:26				
	Arsenic	Α	13	0.55	1	mg/Kg dry	1	09/29/2010 15:44		
	Lead	Α	310	0.41	1	mg/Kg dry	1	09/29/2010 15:44		

 Method: SM2540B Rev 18
 Analyst: arcel

 Percent Solids
 Prep Date/Time: 09/29/2010 17:29

 Percent Solids
 A 85
 0.10
 wt%
 1
 09/30/2010 5:30



Date:

Thursday, September 30, 2010

Analytical Results

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BG-Soil 3I - 092810
 Work Order/ID:
 1010985-06

 Sample Description:
 Sampled:
 09/28/2010 16:05

Matrix: Solid Sample Description: Sample Description: Sample Description: 09/29/2010 10:03 Received: 09/29/2010 9:30

A	nalyses	ΑT	Result	RL	Qual	Units	DF	Analyzed			
		Method: SW-846 6010B					Analyst: <b>SA</b>				
Total Metals by ICP		Р	rep Method: SW846 30	050B	Prep Date/Time: 09/29/2010 10:2						
	Arsenic	Α	16	0.54		mg/Kg dry	1	09/29/2010 15:50			
	Lead	Α	440	0.40		mg/Kg dry	1	09/29/2010 15:50			

			Method: SM2540B		Analyst: arcel		
Percent Solids					Pi	rep Date	Time: 09/29/2010 17:29
	Percent Solids	Α	90	0.10	wt%	1	09/30/2010 5:30



Date:

Thursday, September 30, 2010

Analytical Results

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site
Client Sample ID: BG-Soil 3J - 092810

 Client Sample ID:
 BG-Soil 3J - 092810
 Work Order/ID:
 1010985-07

 Sample Description:
 Sampled:
 09/28/2010 16:10

 Matrix:
 Solid
 Received:
 09/29/2010
 9:30

Analyses		ΑT	Result	RL	Qual	Units	DF	Analyzed		
		Method: SW-846 6010B					Analyst: <b>SA</b>			
Total Metals by ICP		Prep Method: SW846 3050B				Prep Date/Time: 09/29/2010 10:2				
	Arsenic	Α	16	0.58		mg/Kg dry	1	09/30/2010 10:14		
	Lead	Α	400	0.44		mg/Kg dry	1	09/30/2010 10:14		

			Method: SM2540B		Analyst: <b>arcel</b>		
Percent Solids						Prep Date	/Time: 09/29/2010 17:29
	Percent Solids	Α	86	0.10	wt%	1	09/30/2010 5:30



**Analytical Results** Date: Thursday, September 30, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**Client Project:** Bautsch - Gray Mine Site

Client Sample ID: BG-Soil 3K - 092810 Work Order/ID: 1010985-08

**Sample Description:** Sampled: 09/28/2010 16:15

Matrix: Solid 09/29/2010 9:30 Received:

Aı	nalyses	ΑT	Result	RL	Qual	Units	DF	Analyzed		
		Method: SW-846 6010B					Analyst: <b>SA</b>			
Total Metals by ICP		Р	rep Method: SW846 30	050B	Prep Date/Time: 09/29/2010 10:26					
	Arsenic	Α	15	0.52	2	mg/Kg dry	1	09/30/2010 10:19		
	Lead	Α	380	0.39	Э	mg/Kg dry	1	09/30/2010 10:19		

	Method: SM2540E	Method: <b>SM2540B Rev 18</b>					
Percent Solids					Prep Date/Time: 09/29/2010 17:29		
Percent Solids	A 91	0.10	wt%	1	09/30/2010 5:30		



**Analytical Results** Date: Thursday, September 30, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**Client Project:** Bautsch - Gray Mine Site

Client Sample ID: BG-Soil 3L - 092810 Work Order/ID: 1010985-09

**Sample Description:** Sampled: 09/28/2010 16:20

Matrix: Solid 09/29/2010 9:30 Received:

Analyses		ΑT	Result	RL	Qual	Units	DF	Analyzed
		Method: SW-846 6010B					An	alyst: <b>SA</b>
Total Metals by ICP		Р	rep Method: SW846 30	)50B		Prep Date/Time: 09/29/2010 10:20		
	Arsenic	Α	12	0.53	r	ng/Kg dry	1	09/30/2010 10:25
	Lead	Α	240	0.40	r	ng/Kg dry	1	09/30/2010 10:25

	Well 100. 3W2340E	Metriod. SM2540B Rev 16					
Percent Solids			Prep Date/Time: 09/29/2010 17:29				
Percent Solids	A 94	0.10	wt% 1	09/30/2010 5:30			



Analytical Results Date: Thursday, September 30, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BG-Soil 3M - 092810
 Work Order/ID:
 1010985-10

 Sample Description:
 Sampled:
 09/28/2010
 16:25

 Matrix:
 Solid
 Received:
 09/29/2010
 9:30

AT Result RL Units DF **Analyses** Qual Analyzed Method: SW-846 6010B Analyst: SA Prep Method: SW846 3050B Prep Date/Time: 09/29/2010 10:26 **Total Metals by ICP** A 12 Arsenic 0.53 mg/Kg dry 09/30/2010 10:30 A 230 mg/Kg dry 09/30/2010 10:30 Lead 0.40

 Method: SM2540B Rev 18
 Analyst: arcel

 Percent Solids
 Percent Solids
 A 94
 0.10
 wt%
 1
 0.9/30/2010 5:30



Analytical Results Date:

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BG-Soil 3N - 092810
 Work Order/ID:
 1010985-11

 Sample Description:
 Sampled:
 09/28/2010 16:30

 Sample Description:
 Sampled:
 09/28/2010 16:30

 Matrix:
 Solid
 Received:
 09/29/2010 9:30

AT Result RL Units DF **Analyses** Qual Analyzed Method: SW-846 6010B Analyst: SA Prep Method: SW846 3050B Prep Date/Time: 09/29/2010 10:26 **Total Metals by ICP** A 17 Arsenic 0.50 mg/Kg dry 09/30/2010 10:36 A 530 0.38 09/30/2010 10:36 Lead mg/Kg dry

 Method: SM2540B Rev 18
 Analyst: arcel

 Percent Solids
 Prep Date/Time: 09/29/2010 17:29

 Percent Solids
 A 93
 0.10
 wt%
 1
 09/30/2010 5:30

Thursday, September 30, 2010



## FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

NA = Not Analyzed mg/L = Milligrams per Liter (ppm)

mg/Kg = Milligrams per Kilogram (ppm)

U = Undetected

J = Analyte concentration detected between RL and MDL (Metals / Organics)

B = Detected in the associated method Blank at a concentration above the routine PQL/RL

D = Dilution performed on sample

ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)

E = Value above quantitation range

H = Analyte was prepared and/or analyzed outside of the analytical method holding time

= Matrix Interference

R = RPD outside accepted recovery limits
S = Spike recovery outside recovery limits

Surr = Surrogate
DF = Dilution Factor

#### **ANALYTE TYPES**

A,B = Target Analyte
I = Internal Standard
M = Summation Analyte

S = Surrogate

T = Tentatively Identified Compound (TIC, concentration estimated)

### **QC SAMPLE IDENTIFICATIONS**

MBLK	=	Method Blank	ICSA	=	Interference Check Standard "A"
DUP	=	Method Duplicate	<b>ICSAB</b>	=	Interference Check Standard "AB"
LCS	=	Laboratory Control Sample	LCSD	=	Laboratory Control Sample Duplicate
BS	=	Method Blank Spike	BSD	=	Method Blank Spike Duplicate
MS	=	Matrix Spike	MSD	=	Matrix Spike Duplicate
ICB	=	Initial Calibration Blank	CCB	=	Continuing Calibration Blank
ICV	=	Initial Calibration Verification	CCV	=	Continuing Calibration Verification
PDS	=	Post Digestion Spike	SD	=	Serial Dilution
OPR	=	Ongoing Precision and Recovery Stand	ard		

## **CERTIFICATIONS**

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

Illinois EPA for the analysis wastewater and solid waste in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (accreditation #100435)

Illinois Department of Public Health for the microbiological analysis of drinking water (registry #1755266)

Indiana DEM approved support laboratory for solid waste and wastewater analyses

Indiana SDH for the chemical analysis of drinking water (lab #C-45-03)

Indiana SDH for the microbiological analysis of drinking water (lab #M-45-8)

Kentucky DEP for the chemical analysis of drinking water (lab #90147)

Kentucky EPPC for the analysis of samples applicable to the Underground Storage Tank program (lab #75)

\*New York SDH for the chemical analysis of air and emissions (lab #11909)

North Carolina DENR for the environmental analysis for NPDES effluent, surface water, groundwater, and pretreatment regulations(certificate #597)

Tennessee DEC for the chemical analysis of drinking water (lab #04017)

Wisconsin DNR for the chemical analysis of wastewater and solid waste (lab #998036710)



## **COOLER INSPECTION**

COOLER INSPECT	CION					Date:	Thurs	0	
Client Name: LATA-Ke	mron Remediation LLC - A	lbuquerque, NM		Date/	Time Rec	eived:	09/29	/2010 09:30	
Work Order Number:	1010985			Recei	ved by:	Ken Sı	mith		
Checklist completed by:	9/29/2010 9:45:00AM	Ken Smith	_	Revie	ewed by:	9/30/2	2010	МНВ	
		Carrier Name:	FedEx						
Co	ooler ID: Default Cooler			Con	ntainer/Te	mp Blanl	к Тетр	erature: 15.00°C	
After-Hour Arrival?				Yes		No	$\checkmark$	_	
Shipping container/cool	_			Yes	$\checkmark$	No	Ш	Not Present	
-	shipping container/cooler?			Yes	Ш	No	Ш	Not Present	
Custody seals intact on	sample containers?			Yes		No	Н	Not Present ✓	
COC present?				Yes	<u> </u>	No	Н		
COC included sufficient	t client identification? t sample collector information	n2		Yes Yes	<b>Y</b>	No No	Н		
COC included a sample	•	)   <u> </u>		Yes	V	No	Н		
COC agrees with sample				Yes	<u>v</u>	No	H		
COC identified the appr				Yes	<b>7</b>	No	H		
COC included date of co				Yes		No	Н		
COC included time of co	ollection?			Yes		No	П		
COC identified the appr	opriate number of containe	rs?		Yes	$\overline{V}$	No	П		
Samples in proper conta	ainer/bottle?			Yes	$\overline{\checkmark}$	No			
Sample containers intac	ct?			Yes	$\overline{\checkmark}$	No			
Sufficient sample volum				Yes	$\checkmark$	No			
All samples received wi				Yes	lacksquare	No	Ш		
	erved, are the preservatives	s identified?		Yes	$\checkmark$	No	Ш		
COC included the reque	ested analyses?			Yes	$\checkmark$	No	Ш		
	If No, adjusted	l by?							
					_		_		
COC signed when reline				Yes	$\checkmark$	No	Ш		
Samples received on ice				Yes	Ц	No	$\checkmark$		
Samples properly prese		•		Yes	$ lap{}$	No	H	T T/OA : 1 1 1 1	
Voa vials for aqueous s	amples have zero headspa	ce'?		Yes	Ш	No	Ш	No VOA vials submitted	✓
Cooler Comments:									

ANY "NO" EVALUATION (excluding After-Hour Receipt) REQUIRES CLIENT NOTIFICATION.



Sample ID	Client Sample ID	Comments
10I0985-01	BG-Soil H - 092810	
10I0985-02	BG-Soil 3F - 092810	
10I0985-03	BG-Soil 3F - 092810D	
10I0985-04	BG-Soil 3G - 092810	
10I0985-05	BG-Soil 3H - 092810	
10I0985-06	BG-Soil 3I - 092810	
10I0985-07	BG-Soil 3J - 092810	
10I0985-08	BG-Soil 3K - 092810	
10I0985-09	BG-Soil 3L - 092810	
10I0985-10	BG-Soil 3M - 092810	
10I0985-11	BG-Soil 3N - 092810	

Project Submitted to:   Neutribulie, in 14610   Indianapolie, in 46210   Indianapolie, in 46210   Project Submitted to:   Project Submitted Su	Submitted to:									2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
(1) Footest Dav 35ch GLAM M wife RV Trumanound A Burde Nige 2 10centon Capt Early M wife RV M で Trumanound A Burde Nige 2 10centon Capt Early M wife R M R Trump Water (W Methanol, 1) We mail (address) (The Capt Mass Water (SW), Studge Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (SW), Water (SW), Waste Water (SW), Waste Water (SW), Waste Water (SW),	<b>⊗</b>	Terrillvill el: 219-7 ax: 219-	e, IN 46410 69-8378 769-1664			polis, IN 46278 -872-1375 7-872-1379		MAN (	<b>S</b> Mumber 98243	98243
24 よいらいみゃん 色上から N を 5 いた 400 Location	- Kamkon	roject 문	13CE -	SEA N.			Turnaround Ti	me me		Report Type
ALB Jug Jug Le Ru U E	LOUISIAMA BLYD NE SUITE 400	ocation	老	ر الم		[] Routir	ne (7 working da)	(S)	[ ] Results Only	W. Constitution of the con
Compliance   Monitoring   1 Yes(1)   Who   Compliance   Monitoring   1 Yes(1)   Who   Compliance   Monitoring   1 Yes(1)   Who   Compliance   Comp	ALBUQUERQUE, NM 87110	# O			Settle-removed three colones	WARUSH	1* (notify lab)		[] Level III	[] Level
Third	531.5)	omplianc	se Monitoring?	[] Yes(1) 🖔	No No	<u> </u>	24 - 4506		[] Level IV	[1 Level IV CLP-like
HINTY DEST EXPLAINAS (2) HESOLA (3) HCI, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (9) New Types: SoliSolid (8), Sludge, (0) Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (8) The Sodium Thiosulfate, (9) Heavier Types: (1) HNO3, (2) HESOLA, (3) HCI, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (9) Sodium Thiosulfate, (9) Heavier Types: (1) HNO3, (2) HESOLA, (3) HCI, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (9) Sodium Thiosulfate, (9) Heavier Types: (1) HNO3, (2) HESOLA, (3) HCI, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (9) Sodium Thiosulfate, (9) Heavier Types: (1) HNO3, (2) HESOLA, (3) HCI, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (9) Heavier Types: (1) HNO3, (2) HESOLA, (3) HCI, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (9) Heavier Types: (1) HNO3, (2) HESOLA, (2) HEAVIER (DECEMBER) (Signature)  Client Sample ID  No - A7Z Silvic  Client Sample	-353-0337	1)Agency/	Program		/		1		: : ::::::::::::::::::::::::::::::::::	
Hatrix Types: Soul/Solid (5), Sudge, Oil, Wipe, Dinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (6) Frather Types: (1) HNO3, (2) H2SO4, (3) HC), (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Soulum Thissulfate, (6) Hoursulfate, (6) Hoursulfat	JEST BOYNIASSKI	Samp	ler Signature	M	M	Z.	Samp	ler Phone #	200-284	4-2490
Client Sample ID  Client Sampl	la [] Mail [] Telephone [] Fax (fax #)  Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drink	ng Water	(DW), Ground	Jwater (GW),	Surface	Me-mail Water (SW), W	(address) ্ৰিলে aste Water (WW	3P-/N MPS	KI O WESTON	A 65. ENCTIONS LES A
le ID    Composite   Confidence   Confidence	ervative Types: (1) HNO3, (2) H2SO4, (3) HCI, (4) NaC	H, (5) Zii	nc Acetate, (6)	) Methanol, (7	') Sodiun	n Bisulfate, (8) \$	Sodium Thiosulfa	ite, (9) Hexan	e, (U) Unpreser	hev
Composition	Client Sample ID	əji	bətəəli	betzell		equested nalyses				For Lab Use Only
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Hazardous   Whon-Hazardous   Radioactive   Sample Disposition   Date/Time   Relinquished By (signature)   Date/Time   Relinquished By (signature)   Date/Time	C 3M - 09 28	- apolitika karanja sa	aphic distance in the second	1625	and the second second	epone de la Language				2/
Hazardous   Non-Hazardous   Radioactive   Sample Disposition   Date/Time   PLE   Relinquished By (signature)   Date/Time   Relinquished By (signature)   Date/Time   Date/Ti	3N - 092810	4	4	1630	<b>→</b>	<b>♣</b>	-> ->			
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Work Order No.: 1010930

September 30, 2010

LATA-Kemron Remediation LLC - Albuquerque, N 2424 Louisiana Blvd. NE, Suite 400 Albuquerque, NM 87110

Re: Bautsch - Gray Mine Site

Dear Vernon Giles:

Microbac Laboratories, Inc. - Chicagoland Division received 7 sample(s) on 9/28/2010 9:25:00AM for the analyses presented in the following report as Work Order 10I0930.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please feel free to contact us.

Sincerely,

Microbac Laboratories, Inc.

Melissa A. Hamer-Bailey, CHMM

Regulatory Specialist



## **WORK ORDER SAMPLE SUMMARY**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**Project:** Bautsch - Gray Mine Site

**Lab Order:** 1010930

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
1010930-01	BG-Soil 3A - 092710		09/27/2010 14:00	9/28/2010 9:25:00AM
1010930-02	BG-Soil 3B - 092710		09/27/2010 14:05	9/28/2010 9:25:00AM
1010930-03	BG-Soil 3C - 092710		09/27/2010 14:10	9/28/2010 9:25:00AM
1010930-04	BG-Soil 3D - 092710		09/27/2010 14:15	9/28/2010 9:25:00AM
1010930-05	BG-Soil 3E - 092710		09/27/2010 14:20	9/28/2010 9:25:00AM
1010930-06	BG-Soil K - 092710		09/27/2010 14:25	9/28/2010 9:25:00AM
1010930-07	BG-Soil L - 092710		09/27/2010 14:30	9/28/2010 9:25:00AM

Thursday, September 30, 2010

Date:



Date:

Thursday, September 30, 2010

Analytical Results

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BG-Soil 3A - 092710
 Work Order/ID:
 1010930-01

 Sample Description:
 Sampled:
 09/27/2010
 14:00

 Matrix:
 Solid
 Received:
 09/28/2010
 9:25

Α	nalyses	ΑT	Result	RL	Qual	Units	DF	Analyzed
			Method: SW-846 6	010B			Ar	alyst: <b>SA</b>
T	otal Metals by ICP	Р	rep Method: SW846 30	)50B		Pr	ep Date/	Time: 09/28/2010 11:10
	Arsenic	Α	22	0.58		mg/Kg dry	1	09/28/2010 15:13
	Lead	Α	470	0.44		mg/Kg dry	1	09/28/2010 15:13

	Method: SM25	540B Rev 18		Analyst: arcel			
Percent Solids				Prep Date	Time: 09/28/2010 17:06		
Percent Solids	A 86	0.10	wt%	1	09/29/2010 8:30		



Analytical Results Date: Thursday, September 30, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BG-Soil 3B - 092710
 Work Order/ID:
 1010930-02

 Sample Description:
 Sampled:
 09/27/2010 14:05

 Sample Description:
 Sampled:
 09/27/2010
 14:05

 Matrix:
 Solid
 Received:
 09/28/2010
 9:25

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: <b>SW-846</b> 6	6010B			An	alyst: <b>SA</b>
Total Metals by ICP	Pi	rep Method: SW846 3	050B		F	Prep Date/	Time: 09/28/2010 11:10
Arsenic	Α	14	0.58	mg	g/Kg dry	1	09/28/2010 15:30
Lead	Α	390	0.43	mc	n/Ka dry	1	09/28/2010 15:30

			Method: SM2540B	Rev 18		Aı	nalyst: <b>arcel</b>
P	ercent Solids				F	Prep Date	/Time: 09/28/2010 17:06
	Percent Solids	Α	87	0.10	wt%	1	09/29/2010 8:30



Analytical Results Date: Thursday, September 30, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BG-Soil 3C - 092710
 Work Order/ID:
 1010930-03

 Sample Description:
 Sampled:
 09/27/2010 14:10

 Matrix:
 Solid
 Received:
 09/28/2010
 9:25

A	nalyses	ΑT	Result	RL	Qual	Units	DF	Analyzed
			Method: SW-846 6	010B			An	alyst: <b>SA</b>
To	otal Metals by ICP	Р	rep Method: SW846 30	)50B		F	Prep Date/	Time: 09/28/2010 11:10
	Arsenic	Α	21	0.6	0	mg/Kg dry	1	09/28/2010 15:35
	Lead	Α	300	0.4	5	mg/Kg dry	1	09/28/2010 15:35

	Method: SM2540B Rev 18			Aı	nalyst: arcel
Percent Solids				Prep Date	/Time: 09/28/2010 17:06
Percent Solids	A 82	0.10	wt%	1	09/29/2010 8:30



Analytical Results Date: Thursday, September 30, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BG-Soil 3D - 092710
 Work Order/ID:
 1010930-04

 Sample Description:
 Sampled:
 09/27/2010 14:15

Matrix: Solid Sampled: 09/28/2010 14:15

Received: 09/28/2010 9:25

Α	nalyses	ΑT	Result	RL	Qual	Units	DF	Analyzed	
	Method: SW-846 6010B				Analyst: <b>SA</b>				
Total Metals by ICP		Prep Method: SW846 3050B				Prep Date/Time: 09/28/2010 11:10			
	Arsenic	Α	22	0.56		mg/Kg dry	1	09/28/2010 16:02	
	Lead	Α	520	0.42		mg/Kg dry	1	09/28/2010 16:02	

	Method: SM2540B Rev 18				Α	nalyst: <b>arcel</b>
Percent Solids					Prep Date	/Time: 09/28/2010 17:06
Percent Solids	Α	86	0.10	wt%	1	09/29/2010 8:30



Analytical Results Date: Thursday, September 30, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BG-Soil 3E - 092710
 Work Order/ID:
 1010930-05

 Sample Description:
 Sampled:
 09/27/2010 14:20

 Matrix:
 Solid
 Received:
 09/28/2010
 9:25

Α	nalyses	ΑT	Result	RL	Qual	Units	DF	Analyzed	
			Method: SW-846 6	010B			Ar	nalyst: <b>SA</b>	
Total Metals by ICP		Prep Method: SW846 3050B				Prep Date/Time: 09/28/2010 11:10			
	Arsenic	Α	16	0.58		mg/Kg dry	1	09/28/2010 16:08	
	Lead	Α	480	0.44		mg/Kg dry	1	09/28/2010 16:08	

	Method: SM2540B	Method: <b>SM2540B Rev 18</b>			
Percent Solids			Pi	rep Date	Time: 09/28/2010 17:06
Percent Solids	A 84	0.10	wt%	1	09/29/2010 8:30



**Analytical Results** Date: Thursday, September 30, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**Client Project:** Bautsch - Gray Mine Site

Client Sample ID: BG-Soil K - 092710 Work Order/ID: 1010930-06

**Sample Description:** Sampled: 09/27/2010 14:25

Matrix: Solid 09/28/2010 9:25 Received:

Aı	nalyses	ΑT	Result	RL	Qual	Units	DF	Analyzed	
	Method: SW-846 6010B					An	alyst: <b>SA</b>		
Total Metals by ICP		Prep Method: SW846 3050B					Prep Date/Time: 09/28/2010 11:10		
	Arsenic	Α	69	0.5	8	mg/Kg dry	1	09/28/2010 16:13	
	Lead	Α	950	0.4	3	mg/Kg dry	1	09/28/2010 16:13	

		Method. SIMZ340B	Rev 10		A11	iaiyət. <b>ai cei</b>
Ρ	ercent Solids			Pre	p Date/	Time: 09/28/2010 17:06
	Percent Solids	A 87	0.10	wt%	1	09/29/2010 8:30



**Analytical Results** Date: Thursday, September 30, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**Client Project:** Bautsch - Gray Mine Site

Client Sample ID: BG-Soil L - 092710 Work Order/ID: 1010930-07

**Sample Description:** Sampled: 09/27/2010 14:30

Matrix: Solid Received: 09/28/2010 9:25

Α	nalyses	ΑT	Result	RL	Qual	Units	DF	Analyzed		
	Method: <b>SW-846 6010B</b>						Analyst: <b>SA</b>			
Total Metals by ICP		F	Prep Method: SW846 30	050B		Prep Date/Time: 09/28/2010 11:10				
	Arsenic	Α	36	0.59	r	mg/Kg dry	1	09/28/2010 16:19		
	Lead	Α	510	0.44	r	mg/Kg dry	1	09/28/2010 16:19		

		Method: SM2540B	Method: SM2540B Rev 18					
Percent Solids					Prep Date	/Time: 09/28/2010 17:06		
F	Percent Solids	A 85	0.10	wt%	1	09/29/2010 8:30		



### FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

NA = Not Analyzed mg/l = Milligrams per Liter

mg/L = Milligrams per Liter (ppm) mg/Kg = Milligrams per Kilogram (ppm)

U = Undetected

J = Analyte concentration detected between RL and MDL (Metals / Organics)

B = Detected in the associated method Blank at a concentration above the routine PQL/RL

D = Dilution performed on sample

ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)

E = Value above quantitation range

H = Analyte was prepared and/or analyzed outside of the analytical method holding time

= Matrix Interference

R = RPD outside accepted recovery limits
S = Spike recovery outside recovery limits

Surr = Surrogate
DF = Dilution Factor

#### **ANALYTE TYPES**

A,B = Target Analyte
I = Internal Standard
M = Summation Analyte

S = Surrogate

T = Tentatively Identified Compound (TIC, concentration estimated)

### QC SAMPLE IDENTIFICATIONS

MBLK	=	Method Blank	ICSA	=	Interference Check Standard "A"
DUP	=	Method Duplicate	ICSAB	=	Interference Check Standard "AB"
LCS	=	Laboratory Control Sample	LCSD	=	Laboratory Control Sample Duplicate
BS	=	Method Blank Spike	BSD	=	Method Blank Spike Duplicate
MS	=	Matrix Spike	MSD	=	Matrix Spike Duplicate
ICB	=	Initial Calibration Blank	CCB	=	Continuing Calibration Blank
ICV	=	Initial Calibration Verification	CCV	=	Continuing Calibration Verification
PDS	=	Post Digestion Spike	SD	=	Serial Dilution
OPR	=	Ongoing Precision and Recovery Standa	ard		

### CERTIFICATIONS

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

Illinois EPA for the analysis wastewater and solid waste in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (accreditation #100435)

Illinois Department of Public Health for the microbiological analysis of drinking water (registry #1755266)

Indiana DEM approved support laboratory for solid waste and wastewater analyses

Indiana SDH for the chemical analysis of drinking water (lab #C-45-03)

Indiana SDH for the microbiological analysis of drinking water (lab #M-45-8)

Kentucky DEP for the chemical analysis of drinking water (lab #90147)

Kentucky EPPC for the analysis of samples applicable to the Underground Storage Tank program (lab #75)

\*New York SDH for the chemical analysis of air and emissions (lab #11909)

North Carolina DENR for the environmental analysis for NPDES effluent, surface water, groundwater, and pretreatment regulations(certificate #597)

Tennessee DEC for the chemical analysis of drinking water (lab #04017)

Wisconsin DNR for the chemical analysis of wastewater and solid waste (lab #998036710)



### COOLER INSPECTION

COOLER INSPEC	LITON			Date:	Thursda	y, September 30, 2010	)
Client Name: LATA-	Kemron Remediation LLC -	Albuquerque, NM	Date/Time F	Received:	09/28/20	010 09:25	
Work Order Number:	1010930		Received by	: Ken Sı	mith		
Checklist completed by	9/28/2010 9:36:00AM	Ken Smith	Reviewed by	y: 9/28/2	2010	DDG	
		Carrier Name: Fed	Ex			·	
	Controlly D.C. Is Control		Garata in and	T D11	T	4 21 000G	
	Cooler ID: Default Cooler		Container	Temp Blanl	Tempera	ature: 21.00°C	
After-Hour Arrival?			Yes	No	$\overline{\checkmark}$		
Shipping container/co	ooler in good condition?		Yes ✓	No		Not Present	
Custody seals intact	on shipping container/coole	er?	Yes	No	1	Not Present ✓	
•	on sample containers?		Yes	No		Not Present	
COC present?			Yes ✓	No	Ш		
	ent client identification?		Yes 🗸	No	$\sqcup$		
	ent sample collector informa	ation?	Yes 🗸	No	Н		
COC included a samp	•		Yes 🗸	No	H		
COC identified the ar			Yes 🗸	No	H		
COC identified the ap	• •		Yes Yes	No No	H		
COC included time of			Yes V	No	H		
	propriate number of contai	ners?	Yes V	No	Н		
Samples in proper co		nors:	Yes V	No	H		
Sample containers in			Yes 🗸	No	H		
· · · · · · · · · · · · · · · · · · ·	ume for indicated test?		Yes 🗸	No	Ħ		
All samples received			Yes 🗸	No	Н		
3	eserved, are the preservative	es identified?	Yes 🗸	No	H		
COC included the red	quested analyses?		Yes 🗸	No			
	If No, adjus	eted by?					
COC signed when re	linquished and received?		Yes 🗸	No			
Samples received on	ice?		Yes	No	$\checkmark$		
Samples properly pre			Yes ✓	No	Ш		_
Voa vials for aqueous	s samples have zero heads	pace?	Yes	No	No	VOA vials submitted	✓
Cooler Comments:							
ANY "NO" EVALUA	TION (excluding After-Hou	r Receipt) REQUIRES CL	ENT NOTIFICA	TION.			
	Client Sample ID	Comments					
	BG-Soil 3A - 092710						
	BG-Soil 3B - 092710						
	BG-Soil 3C - 092710						
	BG-Soil 3D - 092710						
	BG-Soil 3E - 092710						
	BG-Soil K - 092710						
10I0930-07	BG-Soil L - 092710						

[] Level IV CLP-like X Level II [] Level III CLP-like For Lab Use Only 0550 IO ノスクロ Me-mail (address) Jeff. Bein ABK (QUESTON Saw T. 2018, COM クク 0 0 との 00 Chain of Custody Record Date/Time Date/Time Report Type 12/20 SH Number 98244 M Archive \*\* Preservative Types: (1) HNO3, (2) H2SO4, (3) HCI, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved Instructions on back Sampler Phone # 758-284 [] Results Only d) [] Level IV [] Level III [] Return Received for Lab By (signature) [] EDD \* Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify) Received By (signature) Received By (signature) Dispose as appropriate F **Turnaround Time** [] Routine (7 working days) (needed by) 24- 木が見 A65 EV. C NAUSH\* (notify lab) × × X X 6:00 X × Indianapolis, IN 46278 [ ] 5713 West 85th Street Sample Disposition Tel: 317-872-1375 Fax: 317-872-1379 Preservative Requested Analyses 7 Types \*\* 2 Date/Time Date/Time Date/Time 12/60 2 Compliance Monitoring? [] Yes(1) K No No. of Containers Project Brown SCH - GRAY MINE 1225 1420 (415 (A.3) Z 10 Time Collected Location GKLをジス、ロート Relinquished By (signature) Relinquished By (signature) Relinquished By (signature) T T Sampler Signature 04/27/10 ] Radioactive Merrillville, IN 46410 250 West 84th Drive Date Collected Fax: 219-769-1664 Tel: 219-769-8378 P (1)Agency/Program Filtered Non-Hazardous PO # Composite P Grab St. 400 [] Fax (fax #) Submitted to: 8710 Matrix\* Þ [] Hazardous श्रेवेmple temperature upon receipt in degrees C = Eddress 2424 Coulsiand BLAD. NE [ ] Telephone State, Zip ALBUQUELQUE, NIM JEAN BRYNIASSA Hephone # 404-353-0337 Client Sample ID - 672710 Soil 3E - 092710 092710 017270 092710 Deallent Name LATA - KEMPSA 092710 Possible Hazard Identification [] Mail 092710 100 ST ontact VERNON GIVES impled by (PRINT) 50:130 SILK 3 ₩ Ø 128 3 and Report via **G**mments age 0G-Solt rev. 11/04/04 180 m 000 8 OD CO 12 09/28/2010 LATA-Kemron Remediation Bautsch - Grav Mine Site

Work Order No.: 10I0879



September 30, 2010

LATA-Kemron Remediation LLC - Albuquerque, N 2424 Louisiana Blvd. NE, Suite 400 Albuquerque, NM 87110

Re: Bautsch - Gray Mine Site

Dear Tom Urmson:

Microbac Laboratories, Inc. - Chicagoland Division received 10 sample(s) on 9/27/2010 9:20:00AM for the analyses presented in the following report as Work Order 10I0879.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted. Note, this report has been revised to report by dry weight.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please feel free to contact us.

Sincerely,

Microbac Laboratories, Inc.

Melissa A. Hamer-Bailey, CHMM

Regulatory Specialist



# Revised 9/30/2010

Thursday, September 30, 2010

Date:

### **WORK ORDER SAMPLE SUMMARY**

LATA-Kemron Remediation LLC - Albuquerque, NM

**Project:** Bautsch - Gray Mine Site

**Lab Order:** 1010879

Client:

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received		
1010879-01	BG-Soil 2A - 092310	rag manibor	09/23/2010 16:05	9/27/2010 9:20:00AM		
1010879-02	BG-Soil 2B - 092310		09/23/2010 16:10	9/27/2010 9:20:00AM		
1010879-03	BG-Soil 2C - 092310		09/23/2010 16:15	9/27/2010 9:20:00AM		
1010879-04	BG-Soil 2D - 092310		09/23/2010 16:20	9/27/2010 9:20:00AM		
1010879-05	BG-Soil E - 092310		09/23/2010 16:25	9/27/2010 9:20:00AM		
1010879-06	BG-Soil F - 092310		09/23/2010 16:30	9/27/2010 9:20:00AM		
1010879-07	BG-Soil G - 092310		09/23/2010 16:35	9/27/2010 9:20:00AM		
1010879-08	BG-Soil I - 092310		09/23/2010 16:40	9/27/2010 9:20:00AM		
1010879-09	BG-Soil J - 092310		09/23/2010 16:45	9/27/2010 9:20:00AM		
1010879-10	BG-Soil J - 092310D		09/23/2010 16:45	9/27/2010 9:20:00AM		



**Analytical Results** 

Date: Thursday, September 30, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BG-Soil 2A - 092310
 Work Order/ID:
 1010879-01

 Sample Description:
 Sampled:
 09/23/2010
 16:05

 Matrix:
 Solid
 Received:
 09/27/2010
 9:20

AT Result RL Units DF **Analyses** Qual Analyzed Method: SW-846 6010B Analyst: SA Prep Method: SW846 3050B Prep Date/Time: 09/27/2010 11:02 **Total Metals by ICP** A 11 Arsenic 0.63 mg/Kg dry 09/27/2010 16:02 A 78 09/27/2010 16:02 Lead 0.47 mg/Kg dry

 Method: SM2540B Rev 18
 Analyst: CSTAS

 Percent Solids
 Percent Solids
 A 79
 0.10
 wt%
 1
 0.9/28/2010 7:30



**Analytical Results** 

Date: Thursday, September 30, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BG-Soil 2B - 092310
 Work Order/ID:
 1010879-02

 Sample Description:
 Sampled:
 09/23/2010
 16:10

 Matrix:
 Solid
 Received:
 09/27/2010
 9:20

AT Result RL Units DF **Analyses** Qual Analyzed Method: SW-846 6010B Analyst: SA Prep Method: SW846 3050B Prep Date/Time: 09/27/2010 11:02 **Total Metals by ICP** A 14 Arsenic 0.63 mg/Kg dry 09/27/2010 16:08

 Lead
 A
 150
 0.47
 mg/Kg dry
 1
 09/27/2010 16:08

 Method: SM2540B Rev 18
 Analyst: CSTAS

 Percent Solids
 Prep Date/Time: 09/27/2010 12:37

Percent Solids A 79 0.10 wt% 1 09/28/2010 7:30



### Revised 9/30/2010

**Analytical Results** 

Date: Thursday, September 30, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**Client Project:** Bautsch - Gray Mine Site

Client Sample ID: BG-Soil 2C - 092310 Work Order/ID: 1010879-03

**Sample Description:** Sampled: 09/23/2010 16:15

Matrix: Solid Received: 09/27/2010 9:20

Aı	nalyses	ΑT	Result	RL	Qual	Units	DF	Analyzed	
	Method: SW-846 6010B					An	alyst: <b>SA</b>		
Total Metals by ICP		Prep Method: SW846 3050B					Prep Date/Time: 09/27/2010 11:02		
	Arsenic	Α	11	0.5	6	mg/Kg dry	1	09/27/2010 16:13	
	Lead	Α	110	0.4	2	mg/Kg dry	1	09/27/2010 16:13	

Method: SM2540B Rev 18				ıA	nalyst: CSTAS
Percent Solids			Pi	rep Date	/Time: 09/27/2010 12:37
Percent Solids	A 89	0.10	wt%	1	09/28/2010 7:30



Thursday, September 30, 2010

Date:

**Analytical Results** 

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**Client Project:** Bautsch - Gray Mine Site Client Sample ID: BG-Soil 2D - 092310

Work Order/ID: 1010879-04 **Sample Description:** Sampled: 09/23/2010 16:20

Matrix: Solid 09/27/2010 9:20 Received:

Α	Analyses		Result	RL	Qual	Units	DF	Analyzed			
		Method: SW-846 6010B					Analyst: <b>SA</b>				
Total Metals by ICP			rep Method: SW846 30	)50B		Р	rep Date/	Time: 09/27/2010 11:02			
	Arsenic	Α	12	0.53		mg/Kg dry	1	09/27/2010 16:19			
	Lead	Α	800	0.40		mg/Kg dry	1	09/27/2010 16:19			

		Method: <b>SM2540B Rev 18</b>				Analyst: CSTAS			
Percent Solids					Pr	ep Date/	Time: 09/27/2010 12:37		
	Percent Solids	А	95	0.10	wt%	1	09/28/2010 7:30		



## Revised 9/30/2010

**Analytical Results** 

Date: Thursday, September 30, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BG-Soil E - 092310
 Work Order/ID:
 1010879-05

Sample Description: Sampled: 09/23/2010 16:25

 Matrix:
 Solid
 Received:
 09/27/2010
 9:20

Α	nalyses	AT Result		RL	Qual	Units	DF	Analyzed			
		Method: SW-846 6010B					Analyst: <b>SA</b>				
Total Metals by ICP			rep Method: SW846 30	50B		Р	rep Date/	Time: 09/27/2010 11:02			
	Arsenic	Α	18	0.61		mg/Kg dry	1	09/27/2010 16:24			
	Lead	Α	320	0.46		mg/Kg dry	1	09/27/2010 16:24			

 Method: SM2540B Rev 18
 Analyst: CSTAS

 Percent Solids
 Percent Solids
 A 81
 0.10
 wt%
 1
 0.9/28/2010 7:30



Thursday, September 30, 2010

**Analytical Results** 

Date:

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**Client Project:** Bautsch - Gray Mine Site

Client Sample ID: BG-Soil F - 092310 Work Order/ID: 1010879-06

**Sample Description:** Sampled: 09/23/2010 16:30

Matrix: Solid 09/27/2010 9:20 Received:

Analyses	AT Result		Qual Units	DF	Analyzed
	M	Analyst:	Analyst: <b>SA</b>		
Total Metals by ICP		Prep Date/Time:	09/27/2010 11:02		
Arsenic	A 14	0.55	mg/Kg dry	1 09	/27/2010 16:30
Lead	A 190	0.41	mg/Kg dry	1 09	/27/2010 16:30
	Analyst:	CSTAS			

	Method: S	M2540B Rev 18		Analyst: CSTAS			
Percent Solids				Prep Date	Time: 09/27/2010 12:37		
Percent Solids	A 90	0.10	wt%	1	09/28/2010 7:30		



### Revised 9/30/2010

**Analytical Results** 

Date: Thursday, September 30, 2010

LATA-Kemron Remediation LLC - Albuquerque, NM Client:

**Client Project:** Bautsch - Gray Mine Site

BG-Soil G - 092310 Work Order/ID: 1010879-07 **Client Sample ID:** 

**Sample Description:** 09/23/2010 16:35 Sampled:

Solid Received: 09/27/2010 9:20 Matrix:

Αı	nalyses	AT Result		RL	Qual	Units	DF	Analyzed	
			Method: SW-846 6	Analyst: <b>SA</b>					
To	otal Metals by ICP	Prep Method: SW846 3050B				Prep Date/Time: 09/27/2010 11:02			
	Arsenic	А	22	0.56	m	ng/Kg dry	1	09/28/2010 10:50	
	Lead	А	320	0.42	m	ng/Kg dry	1	09/27/2010 16:57	
	Lead	А	300	0.42	m	ng/Kg dry	1	09/28/2010 10:50	

Method: SM2540B Rev 18 Analyst: CSTAS **Percent Solids** Prep Date/Time: 09/27/2010 12:37 0.10 wt% Percent Solids A 85 09/28/2010 7:30



**Analytical Results** 

Its Date: Thursday, September 30, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BG-Soil I - 092310
 Work Order/ID:
 1010879-08

 Sample Description:
 Sampled:
 09/23/2010 16:40

 Matrix:
 Solid
 Received:
 09/27/2010
 9:20

Analyses		AT	Result	RL	Qual	Units	DF	Analyzed
		Method: SW-846 6010B						alyst: <b>SA</b>
Total Metals by ICP			Prep Method: SW846 3	050B		Р	rep Date/	Time: 09/27/2010 11:02
	Arsenic	Α	20	0.55	m	ng/Kg dry	1	09/28/2010 10:55
	Lead	A 230		0.42	m	ng/Kg dry	1	09/28/2010 10:55
	Lead	А	240	0.42	m	ng/Kg dry	1	09/27/2010 17:02

 Method: SM2540B Rev 18
 Analyst: CSTAS

 Percent Solids
 Percent Solids
 A 90
 0.10
 wt%
 1
 0.9/28/2010 7:30



**Analytical Results** 

Date: Thursday, September 30, 2010

LATA-Kemron Remediation LLC - Albuquerque, NM Client:

**Client Project:** Bautsch - Gray Mine Site

BG-Soil J - 092310 Work Order/ID: 1010879-09 **Client Sample ID:** 

**Sample Description:** 09/23/2010 16:45 Sampled:

Solid 09/27/2010 9:20 Matrix: Received:

Analyses		ΑT	Result	RL	Qual	Units	DF	Analyzed		
		Method: SW-846 6010B					Analyst: <b>SA</b>			
Total Metals by ICP			rep Method: SW846 30	50B		F	rep Date/	Time: 09/27/2010 11:02		
	Arsenic	Α	16	0.53		mg/Kg dry	1	09/28/2010 11:01		
	Lead	Α	190	0.40		mg/Kg dry	1	09/28/2010 11:01		
	Lead	Α	190	0.40		mg/Kg dry	1	09/27/2010 17:08		

Method: SM2540B Rev 18 Analyst: CSTAS **Percent Solids** Prep Date/Time: 09/27/2010 12:37 0.10 wt% Percent Solids A 91 09/28/2010 7:30



Thursday, September 30, 2010

Date:

**Analytical Results** 

LATA-Kemron Remediation LLC - Albuquerque, NM

Client: **Client Project:** Bautsch - Gray Mine Site

BG-Soil J - 092310D Work Order/ID: 1010879-10 **Client Sample ID:** 

**Sample Description:** 09/23/2010 16:45 Sampled:

Solid 09/27/2010 9:20 Matrix: Received:

Analyses		АТ	Result	RL	Qual	Units	DF	Analyzed
				Analyst: <b>SA</b>				
Total Metals by ICP			Prep Method: <b>SW</b> 8	846 3050B		Р	rep Date/	Time:09/27/2010 11:02
	Arsenic	Α	16	0.55	r	ng/Kg dry	1	09/28/2010 11:06
	Lead	Α	160	0.41	r	ng/Kg dry	1	09/28/2010 11:06
	Lead	Α	170	0.41	r	ng/Kg dry	1	09/27/2010 17:13

Method: SM2540B Rev 18 Analyst: CSTAS **Percent Solids** Prep Date/Time: 09/27/2010 12:37 0.10 wt% Percent Solids A 91 09/28/2010 7:30



### FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

NA = Not Analyzed

mg/L = Milligrams per Liter (ppm) mg/Kg = Milligrams per Kilogram (ppm)

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B = Detected in the associated method Blank at a concentration above the routine PQL/RL

D = Dilution performed on sample

ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)

E = Value above quantitation range

H = Analyte was prepared and/or analyzed outside of the analytical method holding time

I = Matrix Interference

R = RPD outside accepted recovery limits
S = Spike recovery outside recovery limits

Surr = Surrogate
DF = Dilution Factor

#### **ANALYTE TYPES**

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I = Internal Standard
M = Summation Analyte

S = Surrogate

T = Tentatively Identified Compound (TIC, concentration estimated)

### **QC SAMPLE IDENTIFICATIONS**

MBLK	=	Method Blank	ICSA	=	Interference Check Standard "A"
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LCS	=	Laboratory Control Sample	LCSD	=	Laboratory Control Sample Duplicate
BS	=	Method Blank Spike	BSD	=	Method Blank Spike Duplicate
MS	=	Matrix Spike	MSD	=	Matrix Spike Duplicate
ICB	=	Initial Calibration Blank	CCB	=	Continuing Calibration Blank
ICV	=	Initial Calibration Verification	CCV	=	Continuing Calibration Verification
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OPR	=	Ongoing Precision and Recovery Stand	ard		

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Indiana DEM approved support laboratory for solid waste and wastewater analyses

Indiana SDH for the chemical analysis of drinking water (lab #C-45-03)

Indiana SDH for the microbiological analysis of drinking water (lab #M-45-8)

Kentucky DEP for the chemical analysis of drinking water (lab #90147)

Kentucky EPPC for the analysis of samples applicable to the Underground Storage Tank program (lab #75)

\*New York SDH for the chemical analysis of air and emissions (lab #11909)

North Carolina DENR for the environmental analysis for NPDES effluent, surface water, groundwater, and pretreatment regulations(certificate #597)

Tennessee DEC for the chemical analysis of drinking water (lab #04017)

Wisconsin DNR for the chemical analysis of wastewater and solid waste (lab #998036710)



## Revised 9/30/2010

**COOLER INSPECTION** 

COOLER INSPE	CCTION					Date:	Thurso	day, Septembe	r 30, 2010	
Client Name: LATA	-Kemron Remediation LLC - Albu	querque, NM		Date/	Time Rec	eived:	09/27/	2010 09:20		
Work Order Number:	1010879			Recei	ved by:	Ken Sn	nith			
Checklist completed b	oy: 9/27/2010 9:30:00AM K	en Smith	_	Revie	ewed by:	9/27/2	010	DDO	3	
		Carrier Name:	FedEx							
	Cooler ID: Default Cooler			Con	ntainer/Te	mp Blank	Tempe	erature: 19	00°C	
After-Hour Arrival? Shipping container/c Custody seals intacc Custody seals intacc COC present? COC included suffic COC included a sar COC agrees with sa COC identified the a COC included date COC included time COC identified the a Samples in proper of Sample containers i Sufficient sample vo All samples received If the samples are p COC included the re	entified?		Yes	<	No N		Not Present Not Present Not Present			
	If No, adjusted by	?								
Samples received o Samples properly p				Yes Yes Yes Yes	✓ ✓	No No No No	V N	o VOA vials s	ubmitted	<b>✓</b>
Cooler Comments:										
	ATION (excluding After-Hour Rece	— — — — int) REOUIRES	CLIENT	— — Г NOT	– — — IFICATIO	- — — ON				
Sample ID	Client Sample ID	Comments	CLILIVI	11101	птелт	0111				
1010879-01	BG-Soil 2A - 092310									
10I0879-02	BG-Soil 2B - 092310	İ								
10I0879-03	BG-Soil 2C - 092310	I								
10I0879-04	BG-Soil 2D - 092310	1								
10I0879-05	BG-Soil E - 092310	İ								
10I0879-06	BG-Soil F - 092310	1								
10I0879-07	BG-Soil G - 092310									
10I0879-08	BG-Soil I - 092310	1								
1010879-09	BG-Soil J - 092310	1								
1010970 10	DC Soil I 002210D	410 777 00	0 526 02	70 -	EL 010.5	760 0276		7 010 700 10	<i>C</i> 1	
10108/9-10 250 W	est 84th Drive, Werrillville, IN 4	<del>0410 IEL.80</del>	<del>w.536.83</del>	1/9 I	EL./19.	<del>/ 69.83 / 8</del>	FAX		04	

||K||Level ||| [] Level III CLP-like [] Level IV CLP-like For Lab Use Only 56807 We-mail (address) rerr. BRANI ARSKI QLUKSTONSCLUTTONS.COM No. 50 50 0 5 2 00 00 0 0 Date/Jime 0 Date/Time Date/Time Chain of Custody Record Report Type Sampler Phone # 708 -284-2490 A Archive \*\* Preservative Types: (1) HNO3, (2) H2SO4, (3) HCI, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved Instructions on back [] Results Only [] Level IV [] Level III Return Redefived for Lab By €signature) Number [] EDD \* Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify) IN Received By (signature) Received By (signature) [] Dispose as appropriate 年 **Turnaround Time** [] Routine (7 working days) (needed by) DINSSOY 24-170R K RUSH\* (notify lab) × × × × × × × X \* X X 00 × 1 Indianapolis, IN 46278 Sample Disposition [] 5713 West 85th Street Requested Preservative Fax: 317-872-1379 Tel: 317-872-1375 Analyses 12 7 -2 Types \*\* 04/24/10 Date/Time Date/Time Date/Time N No. of Containers Compliance Monitoring? [] Yes(1) XNo Project BrutzH GRAM MINE 0 070 2000 632 625 509 6 3 3 Time Collected Relinquished By (signature) ٩ Relinquished By (signature) Relifiquished By (signature) 9 • Sampler Signature 04/23/10 Location GMLENA, Radioactive Merrillville, IN 46410 1/250 West 84th Drive Date Collected Tel: 219-769-8378 Fax: 219-769-1664 (1)Agency/Program Filtered Non-Hazardous # 0d  $\prec$  $\times$ Composite L × × Grab [] Fax (fax #) 43081 \*xinseM Submitted to: Hazardous Sample temperature upon receipt in degrees C = HOPF DONE LABOUR [] Mail [] Telephone のかけれて つかな すめいれ する Secure to the section 0337 アカオアのインシン Glient Name LATA - KEMBON Soddress 756 Park MEADON VOISTON! Client Sample ID MESSTORY IN 012310 01220 08-8-127-8-230 A72310 86-501-2C-092310 092310 523:0 84-50124-06230 Possible Hazard Identification R6-5011 28 - 6723 10 135 Vicrobac ontact VERNOW ampled by (PRINT) elephone # 40% Sole 1 Ø W L end Report via Square, Zip なるくなられ By Soir 1307 / SOL P6-5011 100-100 m パパドド Comments 0 09/27/2010 LATA-Kemron Remediation LLC

**Bautsch - Grav Mine Site** 

rev. 11/04/04

Work Order No.: 10I0759



September 27, 2010

LATA-Kemron Remediation LLC - Albuquerque, N 2424 Louisiana Blvd. NE, Suite 400 Albuquerque, NM 87110

Re: Bautsch - Gray Mine Site

Dear Vernon Giles:

Microbac Laboratories, Inc. - Chicagoland Division received 4 sample(s) on 9/22/2010 10:00:00AM for the analyses presented in the following report as Work Order 10I0759.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please feel free to contact us.

Sincerely,

Microbac Laboratories, Inc.

Deborah Griffiths

Senior Project Manager



# Revised 9/27/2010

Monday, September 27, 2010

Date:

### **WORK ORDER SAMPLE SUMMARY**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Project: Bautsch - Gray Mine Site

**Lab Order:** 1010759

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
1010759-01	BG-Soil A-092110		09/21/2010 14:30	9/22/2010 10:00:00AM
1010759-02	BG-Soil B-092110		09/21/2010 14:35	9/22/2010 10:00:00AM
1010759-03	BG-Soil C-092110		09/21/2010 14:40	9/22/2010 10:00:00AM
1010759-04	BG-Soil D-092110		09/21/2010 14:45	9/22/2010 10:00:00AM



## Revised 9/27/2010

CASE NARRATIVE Date: Monday, September 27, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Project: Bautsch - Gray Mine Site

**Lab Order:** 1010759

B - the Method Blank associated with these samples contained Lead at a level above the reporting limit. This is considered insignificant, as the concentration in the sample was below more than ten-times that measured in the blank.

This report was revised to correct the sample ID for 10I0759-04.



09/23/2010 6:30

**Analytical Results** Date: Monday, September 27, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**Client Project:** Bautsch - Gray Mine Site

Percent Solids

BG-Soil A-092110 Work Order/ID: 1010759-01 **Client Sample ID:** 

**Sample Description:** 09/21/2010 14:30 Sampled:

Solid 09/22/2010 10:00 Matrix: Received:

Ar	nalyses	AT	Result	RL	Qual	Units	DF	Analyzed		
			Method: SW-846 66		Analyst: <b>SA</b>					
Τo	tal Metals by ICP	F	Prep Method: SW846 30	)50B			Prep Date/Time: 09/23/2010 07:16			
	Arsenic	А	9.2	0.47		mg/Kg	1	09/23/2010 10:58		
	Lead	А	110	0.35	В	mg/Kg	1	09/23/2010 10:58		
		Rev 18			An	alyst: cstas				
Percent Solids							Prep Date/Time: 09/22/2010 13:41			

0.10

wt%

A 89



Prep Date/Time: 09/22/2010 13:41

09/23/2010 6:30

Analytical Results Date: Monday, September 27, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

**Percent Solids** 

Percent Solids

 Client Sample ID:
 BG-Soil B-092110
 Work Order/ID:
 1010759-02

 Sample Description:
 Sampled:
 09/21/2010
 14:35

Matrix: Solid Received: 09/22/2010 10:00

Analyses A		T Result RL			Units	DF	DF Analyzed			
		Method: SW-846 60		Analyst: <b>SA</b>						
Total Metals by ICP	P	rep Method: SW846 30	50B	Prep Date/Time: 09/23/2010 07:16						
Arsenic	Α	12	0.50		mg/Kg	1	09/23/2010 11:04			
Lead	А	130	0.38	В	mg/Kg	1	09/23/2010 11:04			
	Analyst: cstas									

0.10

wt%

A 87



Analytical Results Date: Monday, September 27, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BG-Soil C-092110
 Work Order/ID:
 1010759-03

Sample Description: Sampled: 09/21/2010 14:40

Matrix: Solid Received: 09/22/2010 10:00

Aı	nalyses	AT Result		RL	Qual	Units	DF	Analyzed		
		Method: SW-846 6010B					Analyst: <b>SA</b>			
To	Total Metals by ICP Prep Method: SW846 3050B Prep Date/Time: 09/2					Time: 09/23/2010 07:16				
	Arsenic	Α	10	0.50	)	mg/Kg	1	09/23/2010 11:09		
	Lead	Α	77	0.3	' В	mg/Kg	1	09/23/2010 11:09		

	Metriod. SIM2540E	s Rev 10		Analysi. Cstas
Percent Solids			Prep Da	te/Time: 09/22/2010 13:41
Percent Solids	A 90	0.10	wt% 1	09/23/2010 6:30



Analytical Results Date: Monday, September 27, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BG-Soil D-092110
 Work Order/ID:
 1010759-04

 Sample Description:
 Sampled:
 09/21/2010
 14:45

Matrix: Solid Received: 09/22/2010 10:00

Ar	nalyses	AT Resu		RL	Qual	Units	DF	Analyzed		
		Method: SW-846 6010B						Analyst: <b>SA</b>		
To	otal Metals by ICP	P	Prep Method: SW846	3050B		Prep Date/Time: 09/23/2010 07:16				
	Arsenic	Α	13	0.48		mg/Kg	1	09/23/2010 11:15		
	Lead	А	170	0.36	В	mg/Kg	1	09/23/2010 11:15		

	Method: SM2540B Re	v 18		Analyst: cstas		
Percent Solids			F	Prep Date	/Time: 09/22/2010 13:41	
Percent Solids	A 92	0.10	wt%	1	09/23/2010 6:30	

### FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

NA = Not Analyzed mg/L = Milligrams per Liter (ppm) mg/Kg = Milligrams per Kilogram (ppm)

U = Undetected

J = Analyte concentration detected between RL and MDL (Metals / Organics)

B = Detected in the associated method Blank at a concentration above the routine PQL/RL

D = Dilution performed on sample

ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)

E = Value above quantitation range

H = Analyte was prepared and/or analyzed outside of the analytical method holding time

= Matrix Interference

R = RPD outside accepted recovery limits
S = Spike recovery outside recovery limits

Surr = Surrogate
DF = Dilution Factor

#### **ANALYTE TYPES**

A,B = Target Analyte
I = Internal Standard
M = Summation Analyte

S = Surrogate

T = Tentatively Identified Compound (TIC, concentration estimated)

### QC SAMPLE IDENTIFICATIONS

MBLK	=	Method Blank	ICSA	=	Interference Check Standard "A"
DUP	=	Method Duplicate	ICSAB	=	Interference Check Standard "AB"
LCS	=	Laboratory Control Sample	LCSD	=	Laboratory Control Sample Duplicate
BS	=	Method Blank Spike	BSD	=	Method Blank Spike Duplicate
MS	=	Matrix Spike	MSD	=	Matrix Spike Duplicate
ICB	=	Initial Calibration Blank	CCB	=	Continuing Calibration Blank
ICV	=	Initial Calibration Verification	CCV	=	Continuing Calibration Verification
PDS	=	Post Digestion Spike	SD	=	Serial Dilution
OPR	=	Ongoing Precision and Recovery Standa	ard		

### CERTIFICATIONS

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

Illinois EPA for the analysis wastewater and solid waste in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (accreditation #100435)

Illinois Department of Public Health for the microbiological analysis of drinking water (registry #1755266)

Indiana DEM approved support laboratory for solid waste and wastewater analyses

Indiana SDH for the chemical analysis of drinking water (lab #C-45-03)

Indiana SDH for the microbiological analysis of drinking water (lab #M-45-8)

Kentucky DEP for the chemical analysis of drinking water (lab #90147)

Kentucky EPPC for the analysis of samples applicable to the Underground Storage Tank program (lab #75)

\*New York SDH for the chemical analysis of air and emissions (lab #11909)

North Carolina DENR for the environmental analysis for NPDES effluent, surface water, groundwater, and pretreatment regulations(certificate #597)

Tennessee DEC for the chemical analysis of drinking water (lab #04017)

Wisconsin DNR for the chemical analysis of wastewater and solid waste (lab #998036710)



## Revised 9/27/2010

**COOLER INSPECTION** 

COOLER INSPECT	TION					Date:	Mono	day, September 27,	2010
Client Name: LATA-Ke	mron Remediation LLC - A	Albuquerque, NM		Date/T	Time Rec	eived:	09/22	2/2010 10:00	
Work Order Number:	1010759			Receiv	ved by:	Ken Sı	mith		
Checklist completed by:	9/22/2010 10:17:00AM	Ken Smith		Reviev	wed by:	9/22/2	2010	DDG	
		Carrier Name:	- FedEx					•	
C	ooler ID: Default Cooler			Cont	tainer/Te	mp Blanl	к Тетр	perature: 12.00°	C
After-Hour Arrival?				Yes	П	No			
Shipping container/cool	ler in good condition?			Yes	$\overline{}$	No	Ħ	Not Present	
Custody seals intact on	shipping container/cooler?	•		Yes		No	П	Not Present	<b>✓</b>
Custody seals intact on	sample containers?			Yes		No		Not Present	$\overline{\checkmark}$
COC present?				Yes	$\checkmark$	No		_	
COC included sufficient	t client identification?			Yes	$\checkmark$	No	Ш		
	t sample collector information	on?		Yes	$\checkmark$	No	Ш		
COC included a sample				Yes	$\checkmark$	No	Ш		
COC agrees with samp				Yes		No	Н		
COC identified the appr	•			Yes	M	No	H		
COC included date of c COC included time of c				Yes	V	No	Н		
	ropriate number of containe	are?		Yes Yes	<b>Y</b>	No No	Н		
Samples in proper cont		15:		Yes	V	No	Н		
Sample containers inta				Yes	<u>*</u>	No	Н		
Sufficient sample volum				Yes		No	H		
All samples received wi				Yes		No	Н		
•	erved, are the preservatives	s identified?		Yes	$\overline{}$	No	П		
COC included the requ	ested analyses?			Yes	$\checkmark$	No			
	If No, adjusted	d by?							
					_		_		
COC signed when relin	-			Yes	$\checkmark$	No	Ц		
Samples received on ic				Yes		No	Н		
Samples properly prese				Yes	ightharpoons	No	H	1 TO A 1 1	1 D
Voa vials for aqueous s	samples have zero headspa	ace'?		Yes	Ш	No		No VOA vials subm	itted 🗸
Cooler Comments:									
ANY "NO" EVALUATI	ON (excluding After-Hour F	Receipt) REQUIRES	S CLIEN	T NOTI	FICATI	ON.			
	lient Sample ID	Comments							
t	G-Soil A-092110								
•	G-Soil B-092110								
•	G-Soil C-092110								
10I0759-04 BC	G-Soil D-092110								



### **Analytical QC Summary**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM **Metals - Quality Control** 

1010759 Work Order:

Bautsch - Gray Mine Site Project:

B006398 Prep: SW846 3050B Batch:

Total	Metals	hy IC	ı

<b>Total Metals</b>	by ICP									
Sample ID:	Blank (B006398-BLK1)	N	lethod:	SW-846	6010B		Prepped: Analyzed:		3/2010 ( 3/2010 <i>1</i>	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	ND	0.50	mg/Kg							
Lead	0.40	0.38	mg/Kg							
Sample ID: Source:	LCS (B006398-BS1)	N	lethod:	SW-846	6010B		Prepped: Analyzed:			
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	228	1.0	mg/Kg	238.0		95.7	65.1-118		20	
Lead	140	0.75	mg/Kg	154.0		90.8	62.9-110		20	
Sample ID: Source:	Matrix Spike (B006398-MS1) 1010759-04	N	lethod:			Prepped: Analyzed:		3/2010 ( 3/2010 <i>1</i>		
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	100	0.47	mg/Kg	93.46	12.6	93.9	75-125		20	
Lead	269	0.35	mg/Kg	93.46	173	102	75-125		20	
Sample ID:	Matrix Spike Dup (B006398-MSD1)	N	lethod:	SW-846	6010B		Prepped:		3/2010 (	
Source:	1010759-04						Analyzed:	09/2	3/2010 1	11:26
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	104	0.47	mg/Kg	94.34	12.6	96.6	75-125	3.29	20	
Lead	318	0.35	mg/Kg	94.34	173	154	75-125	16.8	20	S



### **Analytical QC Summary**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM Wet Chemistry - Quality Control

Work Order: 1010759

Project: Bautsch - Gray Mine Site

**Batch:** B006372

**Percent Solids** 

Sample ID: Source:	(0)		Method: SM				Prepped: Analyzed:	09/22/2010 1 09/23/2010 0		
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Percent Solids	88.6	0.10	wt%		87.6			1.15	20	

STAT Analysis Corporation
-2242 W. Harrison, Suite 200, Chicago, Illinois 60612 Phone: (312) 733-0551 Fax: (312) 733-2386 AIHA, NVLAP and NELAP accredited e-mait address: STATinfo(a)STATAnalysis.com

Turn Around: ひんちかに Results Needed: am/pm 0 0 0 Lab No.: 9 ot aboratory Work Order No.: Page: Temperature: アク Remarks 833613 のこれのとなる Preservation Code: A = None B = HNO<sub>3</sub> C = NaOH G = OtherDate/Time:  $\mathbf{Q}/z z/L > l_{CO} \mathbf{D} = H_2 SO_4$  E = HCl F = 5035/EnCore 460VR らんぶん かえきつ CHAIN OF CUSTODY RECORD ついてなり (SINTIONS OF の名のこれ Quote No.: P.O. No.: Comments: Eart CJOH, by Anianski e wester Containers No. of 3:11 e-mail: (Vgiles@Kemron. com Date/Time: 09/21/10 Client Tracking No .: Grab Date/Time: Date/Time: Date/Time: Comp. Date/Time 7105 Matrix 2490) 425 Time Taken X n 1440 Phone: 200 707 Date Taken N 01/17/10 201) シュシ KRNKON の介えるような Client Sample Number/Description: MONAN APORT Project Name: BANKH GRAY Report To: VEKNON GILES 0-02210 097116 -092110 Project Location: Garana 89-5011A-89210 MN '60 MN '60 MN '60 MN '70 Maquished by: (Signature) Relinquished by: (Signature) Relinquished by: (Signature) eps epse by: (Signature) 北州 Reboived by: (Signature) (Signature) A PARTY 100 - Solo Sica roject Number: 60-501 Sampler(s): ompany: QC Level: Deborah Griffiths LATA-Kemron Remediation LLC - Albuquerque, NM Bautsch - Grav Mine Site

## ATTACHMENT D SOIL BACKFILL RESULTS



Work Order No.: 10J0003

October 4, 2010

LATA-Kemron Remediation LLC - Albuquerque, N 2424 Louisiana Blvd. NE, Suite 400 Albuquerque, NM 87110

Re: Bautsch - Gray Mine Site

Dear Vernon Giles:

Microbac Laboratories, Inc. - Chicagoland Division received 2 sample(s) on 10/1/2010 8:54:00AM for the analyses presented in the following report as Work Order 10J0003.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please feel free to contact us.

Sincerely,

Microbac Laboratories, Inc.

u m

Deborah Griffiths

Senior Project Manager



Date:

#### **WORK ORDER SAMPLE SUMMARY**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Project: Bautsch - Gray Mine Site

Lab Order: 10J0003

Lab Sample ID	Client Sample ID	Tag Number	<b>Collection Date</b>	Date Received
10J0003-01	BH1		09/16/2010 12:30	10/1/2010 8:54:00AM
10J0003-02	BG Sproule - 092210		09/22/2010 15:30	10/1/2010 8:54:00AM

Monday, October 4, 2010



Analytical Results Date: Monday, October 4, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BH1
 Work Order/ID:
 10J0003-01

 Sample Description:
 Sampled:
 09/16/2010 12:30

 Matrix:
 Solid
 Received:
 10/01/2010
 8:54

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
	Method: SW-846 9045C				Analyst: CS		
pH						Prep Date/T	ime:10/01/2010 15:50
pH	Α	8.67	2.00	) r	H Units	1	10/01/2010 16:10



Analytical Results Date: Monday, October 4, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BG Sproule - 092210
 Work Order/ID:
 10J0003-02

 Sample Description:
 Sampled:
 09/22/2010
 15:30

 Matrix:
 Solid
 Received:
 10/01/2010
 8:54

Analyses AT Result RL Qual Units DF Analyzed

Method: SW-846 9045C Analyst: CS

 pH
 Prep Date/Time: 10/01/2010 15:50

 pH
 A
 6.45
 2.00
 pH Units
 1
 10/01/2010 16:10



#### FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

NA = Not Analyzed mg/L = Milligrams per Liter (ppm)

mg/Kg = Milligrams per Kilogram (ppm)

U = Undetected

J = Analyte concentration detected between RL and MDL (Metals / Organics)

B = Detected in the associated method Blank at a concentration above the routine PQL/RL

D = Dilution performed on sample

ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)

E = Value above quantitation range

H = Analyte was prepared and/or analyzed outside of the analytical method holding time

= Matrix Interference

R = RPD outside accepted recovery limits
S = Spike recovery outside recovery limits

Surr = Surrogate
DF = Dilution Factor

#### **ANALYTE TYPES**

A,B = Target Analyte
I = Internal Standard
M = Summation Analyte

S = Surrogate

T = Tentatively Identified Compound (TIC, concentration estimated)

#### **QC SAMPLE IDENTIFICATIONS**

MBLK	=	Method Blank	ICSA	=	Interference Check Standard "A"
DUP	=	Method Duplicate	ICSAB	=	Interference Check Standard "AB"
LCS	=	Laboratory Control Sample	LCSD	=	Laboratory Control Sample Duplicate
BS	=	Method Blank Spike	BSD	=	Method Blank Spike Duplicate
MS	=	Matrix Spike	MSD	=	Matrix Spike Duplicate
ICB	=	Initial Calibration Blank	CCB	=	Continuing Calibration Blank
ICV	=	Initial Calibration Verification	CCV	=	Continuing Calibration Verification
PDS	=	Post Digestion Spike	SD	=	Serial Dilution
OPR	=	Ongoing Precision and Recovery Stand	ard		

#### **CERTIFICATIONS**

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

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Illinois Department of Public Health for the microbiological analysis of drinking water (registry #1755266)

Indiana DEM approved support laboratory for solid waste and wastewater analyses

Indiana SDH for the chemical analysis of drinking water (lab #C-45-03)

Indiana SDH for the microbiological analysis of drinking water (lab #M-45-8)

Kentucky DEP for the chemical analysis of drinking water (lab #90147)

Kentucky EPPC for the analysis of samples applicable to the Underground Storage Tank program (lab #75)

\*New York SDH for the chemical analysis of air and emissions (lab #11909)

North Carolina DENR for the environmental analysis for NPDES effluent, surface water, groundwater, and pretreatment regulations(certificate #597)

Tennessee DEC for the chemical analysis of drinking water (lab #04017)

Wisconsin DNR for the chemical analysis of wastewater and solid waste (lab #998036710)



#### COOLER INSPECTION

	ent Name: LATA-Kemron Remediation LLC - Albuquerque, NM				Date/Time Received: 10/01/2010 08:54						
		dibuquerque, Nivi						2010 06.34			
Work Order Number:	10J0003			Recei	ved by:	Dave E	Bryant				
Checklist completed by:	10/1/2010 8:54:00AM	Dave Bryant	_	Revie	ewed by:	10/1/2	2010	DDG			
		Carrier Name:	FedEx								
(	Cooler ID: Default Cooler			Con	ntainer/Te	mp Blank	Tempe	erature: 4.00°C	2		
After-Hour Arrival?				Yes		No					
Shipping container/coo	ler in good condition?			Yes	$\overline{}$	No	Ħ	Not Present			
· · · · ·	n shipping container/cooler?			Yes	П	No	П	Not Present	$\overline{\checkmark}$		
Custody seals intact or	n sample containers?			Yes	П	No	П	Not Present	$\overline{\checkmark}$		
COC present?				Yes	$\overline{A}$	No	П	'	_		
COC included sufficien	it client identification?			Yes	$\overline{\checkmark}$	No					
COC included sufficier	nt sample collector information	on?		Yes	$\overline{V}$	No					
COC included a sampl	e description?			Yes	$\checkmark$	No					
COC agrees with samp	ole labels?			Yes	$\checkmark$	No					
COC identified the app	-			Yes	$\checkmark$	No	Ш				
COC included date of				Yes	$\checkmark$	No	Ш				
COC included time of				Yes	$\checkmark$	No	Ц				
	ropriate number of containe	rs?		Yes	$\checkmark$	No	Ц				
Samples in proper con				Yes	$\checkmark$	No	Ш				
Sample containers inta				Yes	$\checkmark$	No	Ш				
Sufficient sample volur				Yes	$\checkmark$	No	Ш				
All samples received w	_			Yes	lacksquare	No	Ш				
	served, are the preservatives	s identified?		Yes	$\checkmark$	No	Ш				
COC included the requ	iested analyses?			Yes	$\checkmark$	No	Ш				
	If No, adjusted	d by?									
-	nquished and received?			Yes	M	No	Н				
Samples received on it				Yes	M	No	Н				
Samples properly pres				Yes	$\vdash$	No	Ц,	WOA : 1 1	· 1 2		
Voa vials for aqueous	samples have zero headspa	ice'?		Yes	Ш	No	ШМ	o VOA vials subm	nitted 🗸		
Cooler Comments: C	Client requested re-log		- — —								
ANY "NO" EVALUAT	ION (excluding After-Hour F	Receipt) REQUIRES	S CLIEN	T NOT	IFICATI	ON.					
	lient Sample ID	Comments									
10J0003-01 B	H1										
10J0003-02 B	G Sproule - 092210										



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Wet Chemistry - Quality Control

Work Order: 10J0003

Project: Bautsch - Gray Mine Site

**Batch:** B006713

рΗ

Sample ID: Source:	Duplicate (B006713-DUP1) 10I0637-01	M	ethod:	SW-846	9045C		Prepped: Analyzed:		I/2010 1 I/2010 1	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
pH	8.610	2.00	pH Units		9.020			4.65	20	

300/ 105003 [] Level IV CLP-like [] Level III CLP-like M Level II For Lab Use Only 10/06/22 9711 Chain of Custody Record Date/Time Date/Time Date/Time Report Type \$ D 98238 Ó \*\* Preservative Types: (1) HNO3, (2) H2SO4, (3) HCI, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved tomurmson Gamai Instructions on back [] Results Only [] Level III [] Level IV Return Received for Lab By (signature) [] EDD Number \* Matrix Types: Soil/Soild (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify) Received By (signature) Received By (signature) Sampler Phone # Dispose as appropriate **Turnaround Time** K Routine ( working days) (needed by) [] RUSH\* (notify lab) Xe-mail (address) Indianapolis, IN 46278 [ ] 5713 West 85th Street Sample Disposition Preservative Tel: 317-872-1375 Fax: 317-872-1379 Requested 5 VARIOUS VArions Analyses Types \*\* Date/Time Date/Time Date/Time Gray Misse Site 5 No. of Containers Compliance Monitoring? [] Yes(1) [4]No Time Collected Relinquished By (signature) Relinquished By (signature) Relingurshed By (signature) Sampler Signature Location GA/eNA Radioactive Merrillville, IN 46410 X 250 West 84th Drive Remediation LLS Project Britsch Date Collected Tel: 219-769-8378 Fax: 219-769-1664 (1)Agency/Program Filtered PO# Composite NE Ste 400 Grab B 87110 [] Telephone [] Fax (fax #) Submitted to: \*xintsM Sample temperature upon receipt in degrees C = y/CUrmson Albuqueraue, NM. 9497-169 2424 Louisians 812 ATA-Kemen om Urmson Cllent Sample ID 100 Mail Possible Hazard Identification 658 mpled by (PRINT) squilly, State, Zip & nd Report via Deporah dress dress ephone # rev. 11/04/04 Comments ntact 10/01/2010 LATA-Kemron Remediation LLC 9 8 of Page

Bautsch - Grav Mine Site

Sampler Phone # 708 - 284 - 2490 Chain of Custody Record Report Type 98246 Instructions on back [] Results Only [] Level III [] Level IV [] EDD Number Turnaround Time KRoutine (7 working days) (needed by) [] RUSH\* (notify lab) Indianapolis, IN 46278 [ ] 5713 West 85th Street Fax: 317-872-1379 Tel: 317-872-1375 3 Project Bransch - Gay Mink Compliance Monitoring? [] Yes(1) NVNo ocation GALLENA, ILL Sampler Signature Merrillville, IN 46410 250 West 84th Drive Fax: 219-769-1664 Tel: 219-769-8378 (1)Agency/Program PO # 13081 Submitted to: npled by (PRINT) JEGG BEYNIARSKA 1, State, Zip WESTOR VILLE, OH aphone # 404 - 353 - 0337 LES PER MERON INT Name LATA - KEMKON HACT VERNOW GILLES ress

K Level II

[] Level III CLP-like [] Level IV CLP-like

e-mail (address) valies e Kemren, com

\* Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)

[] Telephone [] Fax (fax #)

[] Mail

d Report via

10003 For Lab Use Only 0945 lo Lo Date/Time 2/2/2 **A**Archive \*\* Preservative Types: (1) HNO3, (2) H2SO4, (3) HCI, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved Ö Return Received for Lab By (signature) Received By (signature) Received By (signature) Dispose as appropriate 04/22/10 17:00 Sample Disposition Preservative Requested Analyses VARIOUS Types \*\* Date/Time Date/Time Date/Time No. of Containers n 5.30 Time Collected Relinquished By (signature) Relinguished By (signature) Refinquisfied By (signature) 02/22/10 Radioactive Date Collected Filtered Hazardous KNon-Hazardous Composite メ Grab Matrix\* Sample temperature upon receipt in degrees C = 092210 Cilent Sample ID ossible Hazard Identification BG-SPROULE Comments

rev. 11/04/04

9

9 of

Page



Work Order No.: 1010805

September 27, 2010

LATA-Kemron Remediation LLC - Albuquerque, N 2424 Louisiana Blvd. NE, Suite 400 Albuquerque, NM 87110

Re: Bautsch - Gray Mine Site

Dear Vernon Giles:

Microbac Laboratories, Inc. - Chicagoland Division received 1 sample(s) on 9/23/2010 9:45:00AM for the analyses presented in the following report as Work Order 10I0805.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please feel free to contact us.

Sincerely,

Microbac Laboratories, Inc.

Deborah Griffiths

Senior Project Manager



Date:

Monday, September 27, 2010

#### **WORK ORDER SAMPLE SUMMARY**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Project: Bautsch - Gray Mine Site

**Lab Order:** 1010805

 Lab Sample ID
 Client Sample ID
 Tag Number
 Collection Date
 Date Received

 10I0805-01
 BG Sproule - 092210
 09/22/2010 15:30
 9/23/2010 9:45:00AM



#### **Analytical Results**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BG Sproule - 092210
 Work Order/ID:
 1010805-01

 Sample Description:
 Sampled:
 09/22/2010 15:30

 Sample Description:
 Sampled:
 09/22/2010
 15:30

 Matrix:
 Solid
 Received:
 09/23/2010
 9:45

Analyses	AT	Result	RL	Qual U	Inits	DF	Analyzed
			An	alyst: <b>jw</b>			
Polychlorinated Biphenyls	F	Prep Method: SW846 3550		F	Prep Date/	Time: <b>09/23/2010 11:0</b> 9	
Aroclor 1016	Α	ND	41	μg/Kg	g dry	1	09/23/2010 20:41
Aroclor 1221	Α	ND	41	μg/Kg	g dry	1	09/23/2010 20:41
Aroclor 1232	А	ND	41	μg/Kg	g dry	1	09/23/2010 20:41
Aroclor 1242	А	ND	41	μg/Kg	g dry	1	09/23/2010 20:41
Aroclor 1248	Α	ND	41	μg/Kg	g dry	1	09/23/2010 20:41
Aroclor 1254	A	ND	41	μg/Kg	g dry	1	09/23/2010 20:41
Aroclor 1260	А	ND	41	μg/Kg	g dry	1	09/23/2010 20:41
Aroclor 1262	A	ND	41	μg/Kg	g dry	1	09/23/2010 20:41
Aroclor 1268	А	ND	41	μg/Kg	g dry	1	09/23/2010 20:41
Total PCB's	А	ND	41	μg/Kg	g dry	1	09/23/2010 20:41
Surr: Decachlorobiphenyl	S	90.00	38-128	%RE	С	1	09/23/2010 20:41
Surr: Tetrachloro-m-xylene	S	75.00	40-130	%RE	С	1	09/23/2010 20:41

		Method: SW-846 82	70C	Analyst: cr			
Semivolatile Organic Compounds	Р	rep Method: SW846 35	50A	Prep Date/Time: 09/23/2010 12:00			
1,2,4-Trichlorobenzene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59	
1,2-Dichlorobenzene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59	
1,2-Diphenyl-hydrazine	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59	
1,3-Dichlorobenzene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59	
1,4-Dichlorobenzene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59	
2,2´-oxybis(1-chloropropane)	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59	
2,4,5-Trichlorophenol	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59	
2,4,6-Trichlorophenol	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59	
2,4-Dichlorophenol	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59	
2,4-Dimethylphenol	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59	
2,4-Dinitrophenol	Α	ND	2000	μg/Kg dry	1	09/23/2010 13:59	
2,4-Dinitrotoluene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59	
2,6-Dichlorophenol	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59	
2,6-Dinitrotoluene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59	
2-Chloronaphthalene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59	
2-Chlorophenol	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59	
2-Methyl-4,6-dinitrophenol	Α	ND	2000	μg/Kg dry	1	09/23/2010 13:59	
2-Methylnaphthalene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59	
2-Methylphenol	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59	
2-Nitroaniline	Α	ND	2000	μg/Kg dry	1	09/23/2010 13:59	
2-Nitrophenol	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59	
3,3´-Dichlorobenzidine	Α	ND	2000	μg/Kg dry	1	09/23/2010 13:59	
3,4-Benzofluoranthene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59	
3/4-Methylphenol	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59	
3-Nitroaniline	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59	
4,6-Dinitro-2-methylphenol	Α	ND	2000	μg/Kg dry	1	09/23/2010 13:59	
4,6-Dinitro-o-cresol	Α	ND	2000	μg/Kg dry	1	09/23/2010 13:59	

5713 W. 85th Street, Indianapolis, IN 46278-1672 TEL.800.466.5577 TEL.317.872.1375 FAX.317.872.1379

Monday, September 27, 2010

Date:



### **Analytical Results**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BG Sproule - 092210
 Work Order/ID:
 1010805-01

 Sample Description:
 Sampled:
 09/22/2010
 15:30

Matrix: Solid Sampled: 09/23/2010 9:45

nalyses	AT	Result	RL	Qual Units	DF	Analyzed
		Method: SW-846 827	DC .			alyst: <b>cr</b>
mivolatile Organic Compounds		Prep Method: SW846 3550	Α		Prep Date/	Time: 09/23/2010 12:0
4-Bromophenyl phenyl ether	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
4-Chloro-3-methylphenol	Α	ND	830	μg/Kg dry	1	09/23/2010 13:59
4-Chloroaniline	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
4-Chlorophenyl phenyl ether	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
4-Nitroaniline	Α	ND	2000	μg/Kg dry	1	09/23/2010 13:59
4-Nitrophenol	Α	ND	2000	μg/Kg dry	1	09/23/2010 13:59
Acenaphthene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Acenaphthylene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Acetophenone	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Aniline	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Anthracene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Benzidine	Α	ND	2000	μg/Kg dry	1	09/23/2010 13:59
Benzo[a]anthracene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Benzo[a]pyrene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Benzo[b]fluoranthene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Benzo[g,h,i]perylene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Benzo[k]fluoranthene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Benzoic acid	Α	ND	2000	μg/Kg dry	1	09/23/2010 13:59
Benzyl alcohol	А	ND	830	μg/Kg dry	1	09/23/2010 13:59
beta-Chloronaphthalene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Bis(2-chloroethoxy)methane	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Bis(2-chloroethyl)ether	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Bis(2-ethylhexyl)phthalate	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Butyl benzyl phthalate	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Carbazole	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Chrysene	А	ND	410	μg/Kg dry	1	09/23/2010 13:59
Di(2-ethylhexyl) phthalate	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Dibenz[a,h]anthracene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Dibenzofuran	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Diethyl phthalate	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Dimethyl phthalate	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Di-n-butyl phthalate	А	ND	410	μg/Kg dry	1	09/23/2010 13:59
Di-n-octyl phthalate	А	ND	410	μg/Kg dry	1	09/23/2010 13:59
Fluoranthene	А	ND	410	μg/Kg dry	1	09/23/2010 13:59
Fluorene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Hexachlorobenzene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Hexachlorobutadiene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Hexachlorocyclopentadiene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Hexachloroethane	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Indeno[1,2,3cd]pyrene	А	ND	410	μg/Kg dry	1	09/23/2010 13:59
Isophorone	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59

Monday, September 27, 2010

Date:



## **Analytical Results**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site
Client Sample ID: BG Sproule - 092210

 Client Sample ID:
 BG Sproule - 092210
 Work Order/ID:
 10/0805-01

 Sample Description:
 Sampled:
 09/22/2010 15:30

Matrix: Solid Received: 09/23/2010 13:35

analyses	AT	Result	RL	Qual Units	DF	Analyzed
		Method: SW-846 827	0C		An	alyst: <b>cr</b>
Semivolatile Organic Compounds	F	rep Method: <b>SW846 3550</b>		Prep Date/	Time: 09/23/2010 12:00	
m-Dichlorobenzene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Naphthalene	А	ND	410	μg/Kg dry	1	09/23/2010 13:59
Nitrobenzene	А	ND	410	μg/Kg dry	1	09/23/2010 13:59
N-Nitrosodimethylamine	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
N-Nitrosodi-n-propylamine	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
N-Nitrosodiphenylamine	А	ND	410	μg/Kg dry	1	09/23/2010 13:59
o-Chlorophenol	А	ND	410	μg/Kg dry	1	09/23/2010 13:59
p-Chloroaniline	Α	ND	830	μg/Kg dry	1	09/23/2010 13:59
p-Chloro-m-cresol	Α	ND	830	μg/Kg dry	1	09/23/2010 13:59
p-Cresol	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Pentachlorophenol	Α	ND	2000	μg/Kg dry	1	09/23/2010 13:59
Phenanthrene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Phenol	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Pyrene	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Pyridine	Α	ND	410	μg/Kg dry	1	09/23/2010 13:59
Total Cresol	M	ND	410	μg/Kg dry	1	09/23/2010 13:59
Surr: 2,4,6-Tribromophenol	S	79.50	13.9-145	%REC	1	09/23/2010 13:59
Surr: 2-Fluorobiphenyl	S	78.90	28.1-110	%REC	1	09/23/2010 13:59
Surr: 2-Fluorophenol	S	69.30	24.5-110	%REC	1	09/23/2010 13:59
Surr: Nitrobenzene-d5	S	71.90	33.6-110	%REC	1	09/23/2010 13:59
Surr: Phenol-d5	S	76.20	29.6-110	%REC	1	09/23/2010 13:59
Surr: Terphenyl-d14	S	82.90	35.8-121	%REC	1	09/23/2010 13:59

			WELFIOG. 344-040 0200L
<b>Volatile Organic Compounds</b>	, 5035 prep.	SB preserve	

Allo	aryst. JEN
Prep Date/T	ime: 09/24/2010 08:31

Monday, September 27, 2010

Date:

olatile Organic Compounds, 3033 prep, 36 preser	ve				1 TCP Date	THIIC. 03/24/2010 00.01
1,1,1,2-Tetrachloroethane	Α	ND	11	μg/Kg dry	/ 1	09/24/2010 12:40
1,1,1-Trichloroethane	Α	ND	5.6	μg/Kg dry	/ 1	09/24/2010 12:40
1,1,2,2-Tetrachloroethane	Α	ND	5.6	μg/Kg dry	/ 1	09/24/2010 12:40
1,1,2-Trichloroethane	Α	ND	5.6	μg/Kg dry	/ 1	09/24/2010 12:40
1,1-Dichloroethane	Α	ND	5.6	μg/Kg dry	/ 1	09/24/2010 12:40
1,1-Dichloroethene	Α	ND	5.6	μg/Kg dry	/ 1	09/24/2010 12:40
1,2-Dichloroethane	Α	ND	5.6	μg/Kg dry	/ 1	09/24/2010 12:40
1,2-Dichloropropane	Α	ND	5.6	μg/Kg dry	/ 1	09/24/2010 12:40
2-Butanone	Α	75	11	μg/Kg dry	/ 1	09/24/2010 12:40
2-Hexanone	Α	ND	5.6	μg/Kg dry	/ 1	09/24/2010 12:40
4-Methyl-2-Pentanone	Α	ND	5.6	μg/Kg dry	/ 1	09/24/2010 12:40
Acetone	Α	840	56	E μg/Kg dry	/ 1	09/24/2010 12:40
Acrolein	Α	ND	110	μg/Kg dry	/ 1	09/24/2010 12:40
Acrylonitrile	Α	ND	110	μg/Kg dry	/ 1	09/24/2010 12:40
Benzene	Α	ND	5.6	μg/Kg dry	/ 1	09/24/2010 12:40
Bromodichloromethane	Α	ND	5.6	μg/Kg dry	/ 1	09/24/2010 12:40
Bromoform	Α	ND	5.6	μg/Kg dry	/ 1	09/24/2010 12:40



Date:

Monday, September 27, 2010

#### **Analytical Results**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site
Client Sample ID: BG Sproule - 092210

 Client Sample ID:
 BG Sproule - 092210
 Work Order/ID:
 1010805-01

 Sample Description:
 Sampled:
 09/22/2010
 15:30

Matrix: Solid Sampled: 09/23/2010 9:45

nalyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: SW-846 826	0B			An	alyst: <b>JLN</b>
olatile Organic Compounds, 5035 prep,	SB preserve				F	rep Date/	Time: 09/24/2010 08:3
Bromomethane	Α	ND	11	μ	g/Kg dry	1	09/24/2010 12:40
Carbon Disulfide	А	ND	11	μ	g/Kg dry	1	09/24/2010 12:40
Carbon tetrachloride	А	ND	5.6	μ	g/Kg dry	1	09/24/2010 12:40
Chlorobenzene	А	ND	5.6	μ	g/Kg dry	1	09/24/2010 12:40
Chloroethane	Α	ND	11	μ	g/Kg dry	1	09/24/2010 12:40
Chloroform	Α	ND	5.6	μ	g/Kg dry	1	09/24/2010 12:40
Chloromethane	Α	ND	11	μ	g/Kg dry	1	09/24/2010 12:40
cis-1,2-Dichloroethene	Α	ND	5.6	μ	g/Kg dry	1	09/24/2010 12:40
cis-1,3-Dichloropropene	Α	ND	5.6	μ	g/Kg dry	1	09/24/2010 12:40
Dibromochloromethane	Α	ND	5.6	μ	g/Kg dry	1	09/24/2010 12:40
Ethylbenzene	Α	ND	5.6	μ	g/Kg dry	1	09/24/2010 12:40
m,p-Xylene	Α	ND	5.6	μ	g/Kg dry	1	09/24/2010 12:40
Methylene chloride	А	ND	22	μ	g/Kg dry	1	09/24/2010 12:40
Methyl-t-Butyl Ether	Α	ND	5.6	μ	g/Kg dry	1	09/24/2010 12:40
o-Xylene	Α	ND	5.6	μ	g/Kg dry	1	09/24/2010 12:40
Styrene	Α	ND	5.6	μ	g/Kg dry	1	09/24/2010 12:40
Tetrachloroethene	Α	ND	5.6	μ	g/Kg dry	1	09/24/2010 12:40
Toluene	Α	ND	5.6	μ	g/Kg dry	1	09/24/2010 12:40
trans-1,2-Dichloroethene	Α	ND	5.6	μ	g/Kg dry	1	09/24/2010 12:40
trans-1,3-Dichloropropene	Α	ND	5.6	μ	g/Kg dry	1	09/24/2010 12:40
Trichloroethene	Α	ND	5.6	μ	g/Kg dry	1	09/24/2010 12:40
Trichlorofluoromethane	А	ND	11	μ	g/Kg dry	1	09/24/2010 12:40
Vinyl Acetate	А	ND	11	μ	g/Kg dry	1	09/24/2010 12:40
Vinyl chloride	А	ND	11	μ	g/Kg dry	1	09/24/2010 12:40
Total 1,2-Dichloroethene	M	ND	11	μ	g/Kg dry	1	09/24/2010 12:40
Total Xylenes	M	ND	5.6	μ	g/Kg dry	1	09/24/2010 12:40
Surr: 1,2-Dichloroethane-d4	S	106.00	51.7-162	%	REC	1	09/24/2010 12:40
Surr: 4-Bromofluorobenzene	S	93.80	57.4-135	%	REC	1	09/24/2010 12:40
Surr: Dibromofluoromethane	S	102.00	63.5-139	%	REC	1	09/24/2010 12:40
Surr: Toluene-d8	S	111.00	66.6-143	%	REC	1	09/24/2010 12:40

			Method: <b>SW-846 6</b>	010B		Ar	nalyst: <b>SA</b>
T	otal Metals by ICP	Р	rep Method: SW846 30	)50B	Pr	ep Date/	/Time:09/24/2010 07:55
	Arsenic	Α	6.1	0.63	mg/Kg dry	1	09/25/2010 1:25
	Barium	Α	150	0.13	mg/Kg dry	1	09/25/2010 1:25
	Cadmium	Α	0.20	0.13	mg/Kg dry	1	09/25/2010 1:25
	Chromium	Α	13	0.19	mg/Kg dry	1	09/25/2010 1:25
	Lead	Α	17	0.47	mg/Kg dry	1	09/25/2010 1:25
	Selenium	Α	ND	1.9	mg/Kg dry	1	09/25/2010 1:25
	Silver	Α	ND	0.63	mg/Kg dry	1	09/25/2010 1:25

Method: **SW-846 7471A**Prep Method: **SW-846 7471** 

Analyst: **SA**Prep Date/Time: **09/24/2010 08:20** 

**Total Mercury by CVAA** 



Analytical Results Date: Monday, September 27, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

Percent Solids

 Client Sample ID:
 BG Sproule - 092210
 Work Order/ID:
 1010805-01

 Sample Description:
 Sampled:
 09/22/2010
 15:30

 Matrix:
 Solid
 Received:
 09/23/2010
 9:45

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: SW-846 74	171A			An	alyst: <b>SA</b>
Total Mercury by CVAA	P	rep Method: SW-846 74	171		F	Prep Date/	Time: 09/24/2010 08:20
Mercury	Α	ND	0.041		mg/Kg dry	1	09/24/2010 14:01
		Method: SM2540B	Rev 18			An	alyst: <b>GOEHL</b>
Percent Solids					F	Prep Date/	Time: 09/24/2010 13:00

0.10

wt%

A 80

09/27/2010 8:00



#### FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

NA = Not Analyzedmg/L = Milligrams per Liter (ppm)

mg/Kg = Milligrams per Kilogram (ppm)

U = Undetected

J = Analyte concentration detected between RL and MDL (Metals / Organics)

B = Detected in the associated method Blank at a concentration above the routine PQL/RL

D = Dilution performed on sample

ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)

E = Value above quantitation range

H = Analyte was prepared and/or analyzed outside of the analytical method holding time

= Matrix Interference

R = RPD outside accepted recovery limits
S = Spike recovery outside recovery limits

Surr = Surrogate
DF = Dilution Factor

#### **ANALYTE TYPES**

A,B = Target Analyte
I = Internal Standard
M = Summation Analyte

S = Surrogate

T = Tentatively Identified Compound (TIC, concentration estimated)

#### **QC SAMPLE IDENTIFICATIONS**

MBLK	=	Method Blank	ICSA	=	Interference Check Standard "A"
DUP	=	Method Duplicate	ICSAB	=	Interference Check Standard "AB"
LCS	=	Laboratory Control Sample	LCSD	=	Laboratory Control Sample Duplicate
BS	=	Method Blank Spike	BSD	=	Method Blank Spike Duplicate
MS	=	Matrix Spike	MSD	=	Matrix Spike Duplicate
ICB	=	Initial Calibration Blank	CCB	=	Continuing Calibration Blank
ICV	=	Initial Calibration Verification	CCV	=	Continuing Calibration Verification
PDS	=	Post Digestion Spike	SD	=	Serial Dilution
OPR	=	Ongoing Precision and Recovery Standa	ard		

#### CERTIFICATIONS

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

Illinois EPA for the analysis wastewater and solid waste in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (accreditation #100435)

Illinois Department of Public Health for the microbiological analysis of drinking water (registry #1755266)

Indiana DEM approved support laboratory for solid waste and wastewater analyses

Indiana SDH for the chemical analysis of drinking water (lab #C-45-03)

Indiana SDH for the microbiological analysis of drinking water (lab #M-45-8)

Kentucky DEP for the chemical analysis of drinking water (lab #90147)

Kentucky EPPC for the analysis of samples applicable to the Underground Storage Tank program (lab #75)

\*New York SDH for the chemical analysis of air and emissions (lab #11909)

North Carolina DENR for the environmental analysis for NPDES effluent, surface water, groundwater, and pretreatment regulations(certificate #597)

Tennessee DEC for the chemical analysis of drinking water (lab #04017)

Wisconsin DNR for the chemical analysis of wastewater and solid waste (lab #998036710)



#### **COOLER INSPECTION**

COOLER INSPEC	TION					Date:	Mono	day, September 27, 2	2010
Client Name: LATA-K	emron Remediation LLC - Albu	querque, NM		Date/	Time Rec	eived:	09/23	3/2010 09:45	
Work Order Number:	1010805			Recei	ived by:	Ken Sı	mith		
Checklist completed by:	9/23/2010 9:58:00AM K	en Smith		Revie	ewed by:	9/23/2	2010	DDG	
		Carrier Name:	FedEx						
(	Cooler ID: Default Cooler			Con	ntainer/Te	mp Blanl	к Тетр	perature: 21.00°C	2
Custody seals intact of COC present? COC included sufficient COC included sufficient COC included a sample COC agrees with same COC identified the apple COC included date of COC included time of COC identified the apple samples in proper company containers into Sufficient sample volumed.	n shipping container/cooler? n sample containers?  Int client identification? Int sample collector information? It e description? It e description? It ple labels? It propriate matrix? It collection? It collection? It containers? It inter/bottle?  entified?		Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	< < < < < < < < < < < < < < < < < < <	No No No No No No No No No No No No No N		Not Present Not Present Not Present		
	If No, adjusted by	?							
Samples received on i		,		Yes Yes Yes Yes	✓ ✓	No No No	✓ ✓	No VOA vials submi	itted 🗸
									- — — -
ANY "NO" EVALUAT	TON (excluding After-Hour Rece	ipt) REQUIRES	S CLIEN	T NOT	IFICATI	ON.			
	Client Sample ID	Comments							
10I0805-01	3G Sproule - 092210								



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

GC Semivolatiles - Quality Control

Work Order: 1010805

Project: Bautsch - Gray Mine Site

Batch: B006403 Prep: SW846 3550

#### **Polychlorinated Biphenyls**

Sample ID: Source:	Blank (B006403-BLK2	2)	N	lethod:	SW-846	8082		Prepped: Analyzed:		3/2010 <sup>-</sup> 3/2010 <sup>-</sup>	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qua
Aroclor 1016		ND	33	μg/Kg wet							
Aroclor 1221		ND	33	μg/Kg wet							
Aroclor 1232		ND	33	μg/Kg wet							
Aroclor 1242		ND	33	μg/Kg wet							
Aroclor 1248		ND	33	μg/Kg wet							
Aroclor 1254		ND	33	μg/Kg wet							
Aroclor 1260		ND	33	μg/Kg wet							
Aroclor 1262		ND	33	μg/Kg wet							
Aroclor 1268		ND	33	μg/Kg wet							
Total PCB's		ND	33	μg/Kg wet							
Surrogate: Deca	chlorobiphenyl	7.3		μg/Kg wet	6.667		110	38-128			
Surrogate: Tetra	chloro-m-xylene	6.3		μg/Kg wet	6.667		95.0	40-130			
Sample ID: Source:	LCS (B006403-BS2)		N	/lethod:	SW-846	8082		Prepped: Analyzed:		3/2010 ·	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Aroclor 1016		169	33	μg/Kg wet	166.7		102	30.2-145		30	
Aroclor 1260		165	33	μg/Kg wet	166.7		99.2	40.1-138		30	
Surrogate: Deca	chlorobiphenyl	7.0		μg/Kg wet	6.667		105	38-128			
Surrogate: Tetra	chloro-m-xylene	6.0		μg/Kg wet	6.667		90.0	40-130			
Sample ID: Source:	Matrix Spike (B006403	3-MS2)	N	/lethod:	SW-846	8082		Prepped: Analyzed:		3/2010 <sup>-</sup> 3/2010 <sup>-</sup>	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Aroclor 1016		189	38	μg/Kg dry	190.4	ND	99.4	27.2-130		40	
Aroclor 1260		178	38	μg/Kg dry	190.4	ND	93.7	23.8-131		40	
Surrogate: Deca	chlorobiphenyl	7.2		μg/Kg dry	7.615		95.0	38-128			
Surrogate: Tetra	chloro-m-xylene	6.9		μg/Kg dry	7.615		90.0	40-130			
Sample ID: Source:	Matrix Spike Dup (B00 1010753-01	06403-MSD2)	N	/lethod:	SW-846	8082		Prepped: Analyzed:		3/2010 <sup>2</sup>	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Aroclor 1016		192	38	μg/Kg dry	190.4	ND	101	27.2-130	1.72	40	
Aroclor 1260		178	38	μg/Kg dry	190.4	ND	93.6	23.8-131	0.128	40	
Surrogate: Deca	chlorobiphenyl	7.6		μg/Kg dry	7.615		100	38-128			
-	chloro-m-xylene	6.9		μg/Kg dry	7.615		90.0	40-130			



Client: LATA-Kemron Remediation LLC - Albuquerque, NM GCMS Semivolatiles - Quality Control

Work Order: 1010805

Project: Bautsch - Gray Mine Site

**Batch:** B006388 **Prep:** SW846 3550A



Client: LATA-Kemron Remediation LLC - Albuquerque, NM GCMS Semivolatiles - Quality Control

Work Order: 1010805

Project: Bautsch - Gray Mine Site

**Batch:** B006388 **Prep:** SW846 3550A

#### **Semivolatile Organic Compounds**

Sample ID: Blank (B006388-BLK1) Source:		N	Method:	SW-846 8270C		Prepped: Analyzed:		2010 ( 2010 <i>1</i>	
Analyte	Result	Limit	Units	Level Result	%REC	Limits	RPD	Limit	Qual
1,2,4-Trichlorobenzene	ND	330	μg/Kg wet						
1,2-Dichlorobenzene	ND	330	μg/Kg wet						
1,2-Diphenyl-hydrazine	ND	330	μg/Kg wet						
1,3-Dichlorobenzene	ND	330	μg/Kg wet						
1,4-Dichlorobenzene	ND	330	μg/Kg wet						
2,2'-oxybis(1-chloropropane)	ND	330	μg/Kg wet						
2,4,5-Trichlorophenol	ND	330	μg/Kg wet						
2,4,6-Trichlorophenol	ND	330	μg/Kg wet						
2,4-Dichlorophenol	ND	330	μg/Kg wet						
2,4-Dimethylphenol	ND	330	μg/Kg wet						
2,4-Dinitrophenol	ND	1600	μg/Kg wet						
2,4-Dinitrotoluene	ND	330	μg/Kg wet						
2,6-Dichlorophenol	ND	330	μg/Kg wet						
2,6-Dinitrotoluene	ND	330	μg/Kg wet						
2-Chloronaphthalene	ND	330	μg/Kg wet						
2-Chlorophenol	ND	330	μg/Kg wet						
2-Methyl-4,6-dinitrophenol	ND	1600	μg/Kg wet						
2-Methylnaphthalene	ND	330	μg/Kg wet						
2-Methylphenol	ND	330	μg/Kg wet						
2-Nitroaniline	ND	1600	μg/Kg wet						
2-Nitrophenol	ND	330	μg/Kg wet						
3,3´-Dichlorobenzidine	ND	1600	μg/Kg wet						
3,4-Benzofluoranthene	ND	330	μg/Kg wet						
3/4-Methylphenol	ND	330	μg/Kg wet						
3-Nitroaniline	ND	330	μg/Kg wet						
4,6-Dinitro-2-methylphenol	ND	1600	μg/Kg wet						
4,6-Dinitro-o-cresol	ND	1600	μg/Kg wet						
4-Bromophenyl phenyl ether	ND	330	μg/Kg wet						
4-Chloro-3-methylphenol	ND	660	μg/Kg wet						
4-Chloroaniline	ND	330	μg/Kg wet						
4-Chlorophenyl phenyl ether	ND	330	μg/Kg wet						
4-Nitroaniline	ND	1600	μg/Kg wet						
4-Nitrophenol	ND	1600	μg/Kg wet						
Acenaphthene	ND	330	μg/Kg wet						
Acenaphthylene	ND	330	μg/Kg wet						
Acetophenone	ND	330	μg/Kg wet						
Aniline	ND	330	μg/Kg wet						
Anthracene	ND	330	μg/Kg wet						
Benzidine	ND	1600	μg/Kg wet						



Client: LATA-Kemron Remediation LLC - Albuquerque, NM GCMS Semivolatiles - Quality Control

Work Order: 1010805

Project: Bautsch - Gray Mine Site

**Batch:** B006388 **Prep:** SW846 3550A

Analyte         Result         Limit         Units         Level         Result         %REC         Limits         RPD         Limit         Qual           Berazo(a)primene         ND         330         µg/Kg wet         Image	Sample ID: Blank (B006388-BLK1) Source:		N	lethod:	SW-846	8270C		Prepped: Analyzed:		/2010 C	
Benzo(a)plyrane	Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Benzo (B) Fluoranthene         ND         330         µg/Kg wet           Benzo (B, J) (peryleme)         ND         330         µg/Kg wet           Benzo (acid         ND         1800         µg/Kg wet           Benzol caid         ND         1800         µg/Kg wet           Benzol (allonol)         ND         680         µg/Kg wet           Benzyl alcohol         ND         330         µg/Kg wet           Bis(2-chlorethoxy) methane         ND         330         µg/Kg wet           Bis(2-chlorylly) (her         ND         330         µg/Kg wet           Diversory (hithaiste         ND         330         µg/Kg wet           Chrysene         ND         330         µg/Kg wet           Diberzord, (h) (hardinarcene         ND         330         µg/Kg wet           Diberzord, (h) (hardinarcene         ND         330         µg/Kg wet           Diberzord, (h) (hardinarcene         ND         330         µg/Kg wet           Diberzord, (h) (hardin	Benzo[a]anthracene	ND	330	μg/Kg wet							
Benzo(g, h, i)perylene         ND         330         µg/Kg wet           Benzo(g, h, i)perylene         ND         330         µg/Kg wet           Benzo(a) calcoh         ND         660         µg/Kg wet           Beta (2-chloroethoxy)methane         ND         330         µg/Kg wet           Bis(2-chloroethylpether         ND         330         µg/Kg wet           Bis(2-chloroethylpether)         ND         330         µg/Kg wet           Bis(2-chloroethylpethalate         ND         330         µg/Kg wet           Dibenzolarian         ND         330         µg/Kg wet           Dibenzolarian         ND         330         µg/Kg wet           Di-n-bulyl phthalate         ND         330         µg/Kg wet           Di-n-bulyl phthalate         ND         330         µg/Kg wet	Benzo[a]pyrene	ND	330	μg/Kg wet							
Benzo(k)fluoranthene         ND         330         ug/Kg wet           Benzo(aciacia         ND         1600         ug/Kg wet           Benzo(aciacia         ND         1600         ug/Kg wet           Benzo(aciacia         ND         330         ug/Kg wet           Belac/Chiorentoxy/methane         ND         330         ug/Kg wet           Bis(2-ethryllyheyr)/phthexyl)phthalate         ND         330         ug/Kg wet           Bis(2-ethrylhexyl)phthalate         ND         330         ug/Kg wet           Bryshe         ND         330         ug/Kg wet           Chrysene         ND         330         ug/Kg wet           Dibertyl phthalate         ND         330         ug/Kg wet           Dibertyl phthalate         ND         330         ug/Kg wet           Dibertyl phthalate         ND         330         ug/Kg wet           Di-n-cytl phthalate         ND         330         ug/Kg wet           Di-n-cytl phthalate         ND         330         ug/Kg wet           Di-n-cytl phthalate         ND         330         ug/Kg wet           Pi-n-cytl phthalate         ND         330         ug/Kg wet           Di-n-cytl phthalate         ND	Benzo[b]fluoranthene	ND	330	μg/Kg wet							
Benzola acid         ND         1600         Lyrk'g wet           Benzyl alcohol         ND         660         µp/kg wet           beta-Chloronghthalene         ND         330         µp/kg wet           Bis(2-chloroethyz)methane         ND         330         µp/kg wet           Bis(2-chloroethyz)ghthalate         ND         330         µp/kg wet           Buryl benzyl phthalate         ND         330         µp/kg wet           Carbazole         ND         330         µp/kg wet           Dicty-gene         ND         330         µp/kg wet           Dicty-gene         ND         330         µp/kg wet           Dicty-ghthalate         ND         330         µp/kg wet           Dicty-ghthalate         ND         330         µp/kg wet           Dicty phthalate         ND         330         µp/kg wet <td>Benzo[g,h,i]perylene</td> <td>ND</td> <td>330</td> <td>μg/Kg wet</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Benzo[g,h,i]perylene	ND	330	μg/Kg wet							
Benzyl alcohol	Benzo[k]fluoranthene	ND	330	μg/Kg wet							
beta-Chloronaphthalene         ND         330         yg/Kg wet           Bisl(2-chlorebhoxy)methane         ND         330         yg/Kg wet           Bisl(2-chloryhybyther         ND         330         yg/Kg wet           Bisl(2-chloryhybyty)phthalate         ND         330         yg/Kg wet           Butyl berxyl phthalate         ND         330         yg/Kg wet           Chrysene         ND         330         yg/Kg wet           Dif-2-chlyhhexyl) phthalate         ND         330         yg/Kg wet           Dif-2-chlyhhexyl) phthalate         ND         330         yg/Kg wet           Dibetrya, hjanthracene         ND         330         yg/Kg wet           Dibetrya, hjanthracene         ND         330         yg/Kg wet           Dietryb phthalate         ND         330         yg/Kg wet           Dietryb phthalate         ND         330         yg/Kg wet           Di-n-ctyl phthalate         ND         330         yg/Kg wet           Di-n-ctyl phthalate         ND         330         yg/Kg wet           Di-n-ctyl phthalate         ND         330         yg/Kg wet           Hevacchlorobenzene         ND         330         yg/Kg wet           Hevacchl	Benzoic acid	ND	1600	μg/Kg wet							
Bis (2-chloroethoxy)methane         ND         330         yg/Kg wet           Bis (2-chloroethy)ether         ND         330         yg/Kg wet           Bis (2-chloroethy)phthalate         ND         330         yg/Kg wet           Butyl benzyl phthalate         ND         330         yg/Kg wet           Carbazole         ND         330         yg/Kg wet           Chrysene         ND         330         yg/Kg wet           Dibenz (a, hjanthracene)         ND         330         yg/Kg wet           Dibenzofuran         ND         330         yg/Kg wet           Diethyl phthalate         ND         330         yg/Kg wet           Dienthyl phthalate         ND         330         yg/Kg wet           Di-n-butyl phthalate         ND         330         yg/Kg wet           Piloranthere         ND         330         yg/Kg wet           Horoctyl phthalate         ND         330         yg/Kg wet           Hevachlorobuzene         ND	Benzyl alcohol	ND	660	μg/Kg wet							
Bis (2-chloroethylether         ND         330         yg/Kg wet           Bis (2-chloroethylpexyl)phthalate         ND         330         yg/Kg wet           Buyl benzyl phthalate         ND         330         yg/Kg wet           Chrysene         ND         330         yg/Kg wet           Diberatyl phthalate         ND         330         yg/Kg wet           Dibenz (a, h)anthracene         ND         330         yg/Kg wet           Di-n-butyl phthalate         ND         330         yg/Kg wet           Di-n-butyl phthalate         ND         330         yg/Kg wet           Di-n-butyl phthalate         ND         330         yg/Kg wet           Picuranthene         ND         330         yg/Kg wet           Picuranthene         ND         330         yg/Kg wet           Hexachlorobutadiene         ND         330         yg/Kg wet           Hexachlorocyclopentad	beta-Chloronaphthalene	ND	330	μg/Kg wet							
Bis(2-ethylhexyl)phthalate         ND         330         µg/Kg wet           Butyl benzyl phthalate         ND         330         µg/Kg wet           Carbazole         ND         330         µg/Kg wet           Chrysene         ND         330         µg/Kg wet           Dibenzafuran         ND         330         µg/Kg wet           Dibenzofuran         ND         330         µg/Kg wet           Diethyl phthalate         ND         330         µg/Kg wet           Direthyl phthalate         ND         330         µg/Kg wet           Dire-butyl phthalate         ND         330         µg/Kg wet           Dire-butyl phthalate         ND         330         µg/Kg wet           Dire-butyl phthalate         ND         330         µg/Kg wet           Directodyl phthalate         ND         330         µg/Kg wet           Piluoranthene         ND         330         µg/Kg wet           Piluoranthene         ND         330         µg/Kg wet           Hexachlorobutacliene         ND         330         µg/Kg wet           Hexachlorobutacliene         ND         330         µg/Kg wet           Hexachlorobutacliene         ND         330	Bis(2-chloroethoxy)methane	ND	330	μg/Kg wet							
Butyl benzyl phthalate         ND         330         ug/Kg wet           Carbazole         ND         330         ug/Kg wet           Chrysene         ND         330         ug/Kg wet           Dibenzefuran         ND         330         ug/Kg wet           Dibenzofuran         ND         330         ug/Kg wet           Dibenzofuran         ND         330         ug/Kg wet           Dimethyl phthalate         ND         330         ug/Kg wet           Picuranthene         ND         330         ug/Kg wet           Hexachl	Bis(2-chloroethyl)ether	ND	330	μg/Kg wet							
Carbazole         ND         330         µg/kg wet           Chrysene         ND         330         µg/kg wet           Diberazja, hjanthracene         ND         330         µg/kg wet           Dibenzofuran         ND         330         µg/kg wet           Diethyl phthalate         ND         330         µg/kg wet           Di-n-butyl phthalate         ND         330         µg/kg wet           Di-n-butyl phthalate         ND         330         µg/kg wet           Pluoranthene         ND         330         µg/kg wet           Pluoranthene         ND         330         µg/kg wet           Hexachlorobutadiene         ND         330         µg/kg wet           Hexachlorobutadiene         ND         330         µg/kg wet           Hexachlorotethane         ND         330         µg/kg wet           Hexachlorotethane         ND         330         µg/kg wet           Hexachlorotethane         ND         330         µg/kg wet           Nobrone         ND         330         µg/kg wet           Nobrone         ND         330         µg/kg wet           Nobrone         ND         330         µg/kg wet	Bis(2-ethylhexyl)phthalate	ND	330	μg/Kg wet							
Chrysene         ND         330         µg/Kg wet           Di(2-ethylnexyl) phthalate         ND         330         µg/Kg wet           Dibenz/[a,h]anthracene         ND         330         µg/Kg wet           Diehenz/[a,h]anthracene         ND         330         µg/Kg wet           Diehenzhyl phthalate         ND         330         µg/Kg wet           Dien-butyl phthalate         ND         330         µg/Kg wet           Dien-butyl phthalate         ND         330         µg/Kg wet           Pluoranthene         ND         330         µg/Kg wet           Pluorene         ND         330         µg/Kg wet           Hexachlorobutadiene         ND         330         µg/Kg wet           Hexachlorocyclopentadiene         ND         330         µg/Kg wet           Hexachlorocyclo	Butyl benzyl phthalate	ND	330	μg/Kg wet							
Di(2-ethylhexyl) phthalate         ND         330         µg/Kg wet           Dibenzofuran         ND         330         µg/Kg wet           Dibenzofuran         ND         330         µg/Kg wet           Dichetyl phthalate         ND         330         µg/Kg wet           Din-potyl phthalate         ND         330         µg/Kg wet           Din-potyl phthalate         ND         330         µg/Kg wet           Picuranthene         ND         330         µg/Kg wet           Picuranthene         ND         330         µg/Kg wet           Hexachlorobenzene         ND         330         µg/Kg wet           Hexachlorocyclopentadiene         ND         330         µg/Kg wet           Hexachlorocyclopentadiene         ND         330         µg/Kg wet           Hexachlorochtane         ND         330         µg/Kg wet           Hexachlorobenzene         ND         330         µg/Kg wet           Naphthalene         ND         330         µg/Kg wet           Naphthalene         ND         330         µg/Kg wet           N-Nitrosodinethylamine         ND         330         µg/Kg wet           N-Nitrosodinethylamine         ND         330	Carbazole	ND	330	μg/Kg wet							
Dibenz[a,h]anthracene         ND         330         µg/Kg wet           Dibenzofuran         ND         330         µg/Kg wet           Diehtyl phthalate         ND         330         µg/Kg wet           Di-n-bulyl phthalate         ND         330         µg/Kg wet           Di-n-octyl phthalate         ND         330         µg/Kg wet           Piurocene         ND         330         µg/Kg wet           Piurorene         ND         330         µg/Kg wet           Hexachlorobutadiene         ND         330         µg/Kg wet           Hexachlorocyclopentadiene         ND         330         µg/Kg wet           Hexachlorocyclop	Chrysene	ND	330	μg/Kg wet							
Dibetnzofuran         ND         330         µg/Kg wet           Diethyl phthalate         ND         330         µg/Kg wet           Din-butyl phthalate         ND         330         µg/Kg wet           Di-n-butyl phthalate         ND         330         µg/Kg wet           Di-n-butyl phthalate         ND         330         µg/Kg wet           Picuranthene         ND         330         µg/Kg wet           Picuranthene         ND         330         µg/Kg wet           Hexachlorobenzene         ND         330         µg/Kg wet           Hexachlorobutadiene         ND         330         µg/Kg wet           Hexachlorocthane         ND         330         µg/Kg wet           Hexachlorobthane         ND         330         µg/Kg wet           Hexachlorobthane         ND         330         µg/Kg wet           Hexachlorobthane         ND         330         µg/Kg wet           Indeno[1,2,3cd]pyrene         ND         330         µg/Kg wet           Isophorone         ND         330         µg/Kg wet           Naphthalene         ND         330         µg/Kg wet           N-Nitrosodimethylamine         ND         330         µg/Kg w	Di(2-ethylhexyl) phthalate	ND	330	μg/Kg wet							
Diethyl phthalate	Dibenz[a,h]anthracene	ND	330	μg/Kg wet							
Dimethyl phthalate         ND         330         µg/Kg wet           Di-n-butyl phthalate         ND         330         µg/Kg wet           Di-n-octyl phthalate         ND         330         µg/Kg wet           Fluoranthene         ND         330         µg/Kg wet           Hexachlorobenzene         ND         330         µg/Kg wet           Hexachlorobutadiene         ND         330         µg/Kg wet           Hexachlorocyclopentadiene         ND         330         µg/Kg wet           Hexachlorochane         ND         330         µg/Kg wet           Indeno[1,2,3cd]pyrene         ND         330         µg/Kg wet           Isophorone         ND         330         µg/Kg wet           Naphthalene         ND         330         µg/Kg wet           Naphthalene         ND         330         µg/Kg wet           N-Nitrosodimethylamine         ND         330         µg/Kg wet           N-Nitrosodiphenylamine         ND         330         µg/Kg wet           N-Nitrosodiphenylamine         ND         330         µg/Kg wet           N-Chlorophenol         ND         660         µg/Kg wet           P-Chloro-m-cresol         ND         660	Dibenzofuran	ND	330	μg/Kg wet							
Din-butyl phthalate   ND   330   µg/Kg wet     Din-octyl phthalate   ND   ND   ND   ND   ND   ND   ND   N	Diethyl phthalate	ND	330	μg/Kg wet							
Din-noctyl phthalate	Dimethyl phthalate	ND	330	μg/Kg wet							
Fluoranthene   ND   330	Di-n-butyl phthalate	ND	330	μg/Kg wet							
Fluorene         ND         330         µg/Kg wet           Hexachlorobenzene         ND         330         µg/Kg wet           Hexachlorocyclopentadiene         ND         330         µg/Kg wet           Hexachlorocethane         ND         330         µg/Kg wet           Indeno[1,2,3cd]pyrene         ND         330         µg/Kg wet           Isophorone         ND         330         µg/Kg wet           In-Dichlorobenzene         ND         330         µg/Kg wet           Naphthalene         ND         330         µg/Kg wet           N-Nitrosodimethylamine         ND         330         µg/Kg wet           N-Nitrosodien-propylamine         ND         330         µg/Kg wet           N-Nitrosodiphenylamine         ND         330         µg/Kg wet           O-Chlorophenol         ND         330         µg/Kg wet           O-Chlorom-cresol         ND         660         µg/Kg wet           O-Cresol         ND         30         µg/Kg wet           Pentachlorophenol         ND         30         µg/Kg wet	Di-n-octyl phthalate	ND	330	μg/Kg wet							
Hexachlorobenzene   ND   330   µg/Kg wet     Hexachlorobutadiene   ND   330   µg/Kg wet     Hexachlorocyclopentadiene   ND   330   µg/Kg wet     Hexachlorocyclopentadiene   ND   330   µg/Kg wet     Hexachlorocethane   ND   660   µg/Kg wet     Hexachlorocethane   ND   330   µg/Kg wet     H	Fluoranthene	ND	330	μg/Kg wet							
Hexachlorobutadiene ND 330 µg/Kg wet Hexachlorocyclopentadiene ND 330 µg/Kg wet Hexachlorocyclopentadiene ND 330 µg/Kg wet Hexachloroethane ND 330 µg/Kg wet Indeno[1,2,3cd]pyrene ND 330 µg/Kg wet Indeno[1,2,3cd]py	Fluorene	ND	330	μg/Kg wet							
Hexachlorocyclopentadiene         ND         330         µg/Kg wet           Hexachloroethane         ND         330         µg/Kg wet           Indeno[1,2,3cd]pyrene         ND         330         µg/Kg wet           Isophorone         ND         330         µg/Kg wet           m-Dichlorobenzene         ND         330         µg/Kg wet           Naphthalene         ND         330         µg/Kg wet           N-Nitrobenzene         ND         330         µg/Kg wet           N-Nitrosodimethylamine         ND         330         µg/Kg wet           N-Nitrosodiphenylamine         ND         330         µg/Kg wet           N-Nitrosodiphenylamine         ND         330         µg/Kg wet           O-Chlorophenol         ND         330         µg/Kg wet           P-Chloroaniline         ND         660         µg/Kg wet           P-Cresol         ND         330         µg/Kg wet           P-Cresol         ND         330         µg/Kg wet           Pentachlorophenol         ND         1600         µg/Kg wet	Hexachlorobenzene	ND	330	μg/Kg wet							
Hexachloroethane         ND         330         µg/Kg wet           Indeno[1,2,3cd]pyrene         ND         330         µg/Kg wet           Isophorone         ND         330         µg/Kg wet           m-Dichlorobenzene         ND         330         µg/Kg wet           Naphthalene         ND         330         µg/Kg wet           Naphthalene         ND         330         µg/Kg wet           N-Nitrobenzene         ND         330         µg/Kg wet           N-Nitrosodimethylamine         ND         330         µg/Kg wet           N-Nitrosodiphenylamine         ND         330         µg/Kg wet           N-Nitrosodiphenol         ND         330         µg/Kg wet           O-Chlorophenol         ND         330         µg/Kg wet           P-Chloro-m-cresol         ND         660         µg/Kg wet           P-Cresol         ND         330         µg/Kg wet           Pentachlorophenol         ND         1600         µg/Kg wet	Hexachlorobutadiene	ND	330	μg/Kg wet							
ND   330	Hexachlorocyclopentadiene	ND	330	μg/Kg wet							
ND   330	Hexachloroethane	ND	330	μg/Kg wet							
m-Dichlorobenzene  ND  330  µg/Kg wet  Naphthalene  ND  330  µg/Kg wet  Nitrobenzene  ND  330  µg/Kg wet  N-Nitrosodimethylamine  ND  330  µg/Kg wet  N-Nitrosodi-n-propylamine  ND  330  µg/Kg wet  N-Nitrosodiphenylamine  ND  330  µg/Kg wet  N-Nitrosodiphenol  ND  330  µg/Kg wet	Indeno[1,2,3cd]pyrene	ND	330	μg/Kg wet							
Naphthalene         ND         330         µg/Kg wet           Nitrobenzene         ND         330         µg/Kg wet           N-Nitrosodimethylamine         ND         330         µg/Kg wet           N-Nitrosodiphen-propylamine         ND         330         µg/Kg wet           N-Nitrosodiphenylamine         ND         330         µg/Kg wet           p-Chlorophenol         ND         330         µg/Kg wet           p-Chloroaniline         ND         660         µg/Kg wet           p-Chloro-m-cresol         ND         660         µg/Kg wet           p-Cresol         ND         330         µg/Kg wet           Pentachlorophenol         ND         1600         µg/Kg wet	Isophorone	ND	330	μg/Kg wet							
Nitrobenzene         ND         330         µg/Kg wet           N-Nitrosodimethylamine         ND         330         µg/Kg wet           N-Nitrosodin-propylamine         ND         330         µg/Kg wet           N-Nitrosodiphenylamine         ND         330         µg/Kg wet           o-Chlorophenol         ND         330         µg/Kg wet           p-Chloroaniline         ND         660         µg/Kg wet           p-Chloro-m-cresol         ND         660         µg/Kg wet           p-Cresol         ND         330         µg/Kg wet           Pentachlorophenol         ND         1600         µg/Kg wet	m-Dichlorobenzene	ND	330	μg/Kg wet							
N-Nitrosodimethylamine N-Nitrosodi-n-propylamine N-Nitrosodi-n-propylamine N-Nitrosodiphenylamine N-Nitrosodi-n-propylamine N-Ni	Naphthalene	ND	330	μg/Kg wet							
N-Nitrosodi-n-propylamine         ND         330         μg/Kg wet           N-Nitrosodiphenylamine         ND         330         μg/Kg wet           ο-Chlorophenol         ND         330         μg/Kg wet           ρ-Chloroaniline         ND         660         μg/Kg wet           ρ-Chloro-m-cresol         ND         660         μg/Kg wet           ρ-Cresol         ND         330         μg/Kg wet           Pentachlorophenol         ND         1600         μg/Kg wet	Nitrobenzene	ND	330	μg/Kg wet							
N-Nitrosodiphenylamine         ND         330         μg/Kg wet           ο-Chlorophenol         ND         330         μg/Kg wet           ρ-Chloroaniline         ND         660         μg/Kg wet           ρ-Chloro-m-cresol         ND         660         μg/Kg wet           ρ-Cresol         ND         330         μg/Kg wet           Pentachlorophenol         ND         1600         μg/Kg wet	N-Nitrosodimethylamine	ND	330	μg/Kg wet							
p-Chlorophenol         ND         330 μg/Kg wet           p-Chloroaniline         ND         660 μg/Kg wet           p-Chloro-m-cresol         ND         660 μg/Kg wet           p-Cresol         ND         330 μg/Kg wet           Pentachlorophenol         ND         1600 μg/Kg wet	N-Nitrosodi-n-propylamine	ND	330	μg/Kg wet							
p-Chloroaniline	N-Nitrosodiphenylamine	ND	330	μg/Kg wet							
p-Chloro-m-cresol ND 660 μg/Kg wet p-Cresol ND 330 μg/Kg wet  Pentachlorophenol ND 1600 μg/Kg wet	o-Chlorophenol	ND	330	μg/Kg wet							
P-Cresol ND 330 μg/Kg wet  Pentachlorophenol ND 1600 μg/Kg wet	p-Chloroaniline	ND	660	μg/Kg wet							
Pentachlorophenol ND 1600 µg/Kg wet	p-Chloro-m-cresol	ND	660	μg/Kg wet							
	p-Cresol	ND	330	μg/Kg wet							
Phenanthrene ND 330 µg/Kg wet	Pentachlorophenol	ND	1600	μg/Kg wet							
	Phenanthrene	ND	330	μg/Kg wet							



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

GCMS Semivolatiles - Quality Control

Work Order: 1010805

1,4-Dichlorobenzene

Project: Bautsch - Gray Mine Site

**Batch:** B006388 **Prep:** SW846 3550A

Sample ID: Blank (B006388-BLK1) Source:		N	/lethod:	SW-846	8270C		Prepped: Analyzed:		3/2010 3/2010	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Phenol	ND	330	μg/Kg wet							
Pyrene	ND	330	μg/Kg wet							
Pyridine	ND	330	μg/Kg wet							
Total Cresol	ND	330	μg/Kg wet							
Surrogate: 2,4,6-Tribromophenol	88		ug/mL	100.0		87.9	13.9-145			
Surrogate: 2-Fluorobiphenyl	40		ug/mL	50.00		80.5	28.1-110			
Surrogate: 2-Fluorophenol	82		ug/mL	100.0		81.8	24.5-110			
Surrogate: Nitrobenzene-d5	42		ug/mL	50.00		83.0	33.6-110			
Surrogate: Phenol-d5	84		ug/mL	100.0		83.6	29.6-110			
Surrogate: Terphenyl-d14	50		ug/mL	50.00		100	35.8-121			
Sample ID: Blank (B006388-BLK2) Source:		N	/lethod:	SW-846	8270C		Prepped: Analyzed:		3/2010 3/2010	
Analyte	Result	Limit	Units	Level	Result	%REC		RPD	Limit	Qual
Acenaphthene	ND	330	μg/Kg wet			70.120				
Acenaphthylene	ND	330	μg/Kg wet							
Anthracene	ND	330	μg/Kg wet							
Benzo[a]anthracene	ND	330	μg/Kg wet							
Benzo[a]pyrene	ND	330	μg/Kg wet							
Benzo[b]fluoranthene	ND	330	μg/Kg wet							
Benzo[g,h,i]perylene	ND	330	μg/Kg wet							
Benzo[k]fluoranthene	ND	330	μg/Kg wet							
Chrysene	ND	330	μg/Kg wet							
Dibenz[a,h]anthracene	ND	330	μg/Kg wet							
Fluoranthene	ND	330	μg/Kg wet							
Fluorene	ND	330	μg/Kg wet							
Indeno[1,2,3cd]pyrene	ND	330	μg/Kg wet							
Naphthalene	ND	330	μg/Kg wet							
Phenanthrene	ND	330	μg/Kg wet							
Pyrene	ND	330	μg/Kg wet							
Surrogate: 2,4,6-Tribromophenol	82		ug/mL	100.0		82.4	13.9-145			
Surrogate: 2-Fluorobiphenyl	41		ug/mL	50.00		81.1	28.1-110			
Surrogate: 2-Fluorophenol	79		ug/mL	100.0		79.1	24.5-110			
Surrogate: Nitrobenzene-d5	39		ug/mL	50.00		77.7	33.6-110			
Surrogate: Phenol-d5	82		ug/mL	100.0		81.6	29.6-110			
Surrogate: Terphenyl-d14	43		ug/mL	50.00		86.2	35.8-121			
Sample ID: LCS (B006388-BS1)		N	/lethod:	SW-846	8270C		Prepped:		3/2010 3/2010	
Source: Analyte	Result	Limit	Units	Level	Result	%REC	Analyzed: Limits	RPD	Limit	
1,2,4-Trichlorobenzene	2210	330	μg/Kg wet	Level 3333	Resuit	%REC 66.4	35.9-110	ארט	30	Qual
1,2,4-THUHUIODEHZEHE	2210	330	µg/r\g wet	<i>აააა</i>		00.4	33.8-110		30	

5713 W. 85th Street, Indianapolis, IN 46278-1672 TEL.800.466.5577 TEL.317.872.1375 FAX.317.872.1379

3333

20-124

μg/Kg wet

330

1980

30



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**GCMS Semivolatiles - Quality Control** 

Work Order: 1010805

Project: Bautsch - Gray Mine Site

**Batch:** B006388 **Prep:** SW846 3550A

Sample ID: LCS (B006388-BS1) Source:		ľ	Method:	SW-846 8	270C		Prepped: Analyzed:		010 07 010 10	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits			Qual
2,2'-oxybis(1-chloropropane)	2160	330	μg/Kg wet	3333		64.7	10-113		30	
2,4-Dinitrotoluene	2110	330	μg/Kg wet	3333		63.2	42.6-110		30	
2-Chloronaphthalene	2300	330	μg/Kg wet	3333		69.0	19-111		30	
2-Chlorophenol	2230	330	μg/Kg wet	3333		67.0	36.1-110		30	
3,3'-Dichlorobenzidine	2720	1600	μg/Kg wet	3333		81.7	50-150		30	
4-Chloro-3-methylphenol	2420	660	μg/Kg wet	3333		72.5	40.6-119		30	
4-Chlorophenyl phenyl ether	2540	330	μg/Kg wet	3333		76.2	24-113		30	
4-Nitrophenol	2250	1600	μg/Kg wet	3333		67.5	39.1-110		30	
Acenaphthene	2230	330	μg/Kg wet	3333		66.8	42.1-110		30	
Benzo[g,h,i]perylene	2520	330	μg/Kg wet	3333		75.5	50-150		30	
Benzo[k]fluoranthene	2370	330	μg/Kg wet	3333		71.1	28-144		30	
Bis(2-ethylhexyl)phthalate	2430	330	μg/Kg wet	3333		73.0	22-128		30	
Dibenz[a,h]anthracene	2450	330	μg/Kg wet	3333		73.4	26-175		30	
Diethyl phthalate	2530	330	μg/Kg wet	3333		76.0	16-119		30	
Dimethyl phthalate	2370	330	μg/Kg wet	3333		71.0	15-130		30	
Indeno[1,2,3cd]pyrene	2700	330	μg/Kg wet	3333		81.1	50-150		30	
N-Nitrosodi-n-propylamine	2090	330	μg/Kg wet	3333		62.7	38.1-110		30	
Pentachlorophenol	1750	1600	μg/Kg wet	3333		52.6	22.1-110		30	
Phenol	1790	330	μg/Kg wet	3333		53.7	38.9-110		30	
Pyrene	2730	330	μg/Kg wet	3333		82.0	44.3-116		30	
Surrogate: 2,4,6-Tribromophenol	76		ug/mL	100.0		76.5	13.9-145			
Surrogate: 2-Fluorobiphenyl	39		ug/mL	50.00		77.7	28.1-110			
Surrogate: 2-Fluorophenol	74		ug/mL	100.0		74.3	24.5-110			
Surrogate: Nitrobenzene-d5	36		ug/mL	50.00		71.9	33.6-110			
Surrogate: Phenol-d5	68		ug/mL	100.0		68.1	29.6-110			
Surrogate: Terphenyl-d14	47		ug/mL	50.00		93. <i>4</i>	35.8-121			
Sample ID: Matrix Spike (B006388-N	лS1)	ı	Method:	SW-846 8	270C		Prepped:	09/23/2	010 07	

Sample ID: Source:	Matrix Spike (B006 1010753-01	6388-MS1)	,		<b>Method:</b> SW-846 8270C			Prepped: Analyzed:		09/23/2010 07 09/23/2010 14		
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual	
1,2,4-Trichlorobe	enzene	2920	380	μg/Kg dry	3807	ND	76.6	33.9-110		30		
1,4-Dichloroben	zene	2750	380	μg/Kg dry	3807	ND	72.3	10-134		30		
2,2'-oxybis(1-ch	loropropane)	2620	380	μg/Kg dry	3807	ND	68.8	10-123		30		
2,4-Dinitrotoluen	ne	3160	380	μg/Kg dry	3807	ND	83.1	49.9-110		30		
2-Chloronaphtha	alene	2780	380	μg/Kg dry	3807	ND	72.9	10-121		30		
2-Chlorophenol		2880	380	μg/Kg dry	3807	ND	75.7	35.7-110		30		
3,3'-Dichlorober	nzidine	3080	1800	μg/Kg dry	3807	ND	80.8	40-160		30		
4-Chloro-3-meth	ylphenol	3300	750	μg/Kg dry	3807	ND	86.6	41.5-121		30		
4-Chlorophenyl	phenyl ether	3130	380	μg/Kg dry	3807	ND	82.2	14-123		30		
4-Nitrophenol		2760	1800	μg/Kg dry	3807	ND	72.5	32.1-121		30		
Acenaphthene		3000	380	μg/Kg dry	3807	ND	78.8	39.8-110		30		



SW-846 8270C

### **Analytical QC Summary**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

GCMS Semivolatiles - Quality Control

09/23/2010 07:21

Prenned:

Work Order: 1010805

4-Chlorophenyl phenyl ether

4-Nitrophenol

Acenaphthene

Benzo[g,h,i]perylene Benzo[k]fluoranthene

Bis(2-ethylhexyl)phthalate

Dibenz[a,h]anthracene

Indeno[1,2,3cd]pyrene

N-Nitrosodi-n-propylamine

Diethyl phthalate

Dimethyl phthalate

Pentachlorophenol

Sample ID:

Project: Bautsch - Gray Mine Site

**Batch:** B006388 **Prep:** SW846 3550A

Matrix Snike (B006388-MS1)

•	itrix Spike (B006388 <sup>.</sup> 10753-01	-IVIS1)	N	letnoa:	SVV-846	8270C		Prepped: Analyzed:		3/2010 ( 3/2010 <i>(</i>	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Benzo[g,h,i]perylene		2400	380	μg/Kg dry	3807	ND	63.1	40-160		30	
Benzo[k]fluoranthene		2110	380	μg/Kg dry	3807	ND	55.5	18-154		30	
Bis(2-ethylhexyl)phtha	late	3540	380	μg/Kg dry	3807	ND	92.9	12-138		30	
Dibenz[a,h]anthracene	•	2540	380	μg/Kg dry	3807	ND	66.7	16-185		30	
Diethyl phthalate		3160	380	μg/Kg dry	3807	ND	83.0	10-129		30	
Dimethyl phthalate		2940	380	μg/Kg dry	3807	ND	77.4	10-140		30	
Indeno[1,2,3cd]pyrene		2620	380	μg/Kg dry	3807	ND	68.9	40-160		30	
N-Nitrosodi-n-propylar	nine	3110	380	μg/Kg dry	3807	ND	81.6	37.4-110		30	
Pentachlorophenol		2490	1800	μg/Kg dry	3807	ND	65.5	10.6-110		30	
Phenol		2680	380	μg/Kg dry	3807	ND	70.4	43.3-110		30	
Pyrene		2950	380	μg/Kg dry	3807	ND	77.6	37.6-113		30	
Surrogate: 2,4,6-Tribro	omophenol	96		ug/mL	100.0		96.0	13.9-145			
Surrogate: 2-Fluorobip	henyl	43		ug/mL	50.00		86.5	28.1-110			
Surrogate: 2-Fluoroph	enol	86		ug/mL	100.0		85.7	24.5-110			
Surrogate: Nitrobenze	ne-d5	40		ug/mL	50.00		79.9	33.6-110			
Surrogate: Phenol-d5		82		ug/mL	100.0		82.1	29.6-110			
Surrogate: Terphenyl-	d14	48		ug/mL	50.00		96.0	35.8-121			
•	utrix Spike Dup (B006 10753-01	6388-MSD1)	N	Method:	SW-846	8270C		Prepped: Analyzed:		3/2010 ( 3/2010 <i>1</i>	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,2,4-Trichlorobenzen	Э	2560	380	μg/Kg dry	3807	ND	67.2	33.9-110	13.0	30	
1,4-Dichlorobenzene		2150	380	μg/Kg dry	3807	ND	56.4	10-134	24.7	30	
2,2'-oxybis(1-chloropro	opane)	2350	380	μg/Kg dry	3807	ND	61.7	10-123	10.8	30	
2,4-Dinitrotoluene		2770	380	μg/Kg dry	3807	ND	72.8	49.9-110	13.2	30	
2-Chloronaphthalene		2650	380	μg/Kg dry	3807	ND	69.7	10-121	4.53	30	
2-Chlorophenol		2600	380	μg/Kg dry	3807	ND	68.3	35.7-110	10.2	30	
3,3'-Dichlorobenzidine		3000	1800	μg/Kg dry	3807	ND	78.8	40-160	2.52	30	
4-Chloro-3-methylpher	nol	2940	750	μg/Kg dry	3807	ND	77.3	41.5-121	11.5	30	

3110

2990

2670

2320

2130

3260

2490

3120

2910

2650

2390

2520

380

1800

380

380

380

380

380

380

380

380

1800

μg/Kg dry

3807

3807

3807

3807

3807

3807

3807

3807

3807

3807

3807

3807

ND

81.6

78.7

70.2

60.9

55.9

85.6

65.3

81.9

76.3

69.6

62.7

66.2

14-123

32.1-121

39.8-110

40-160

18-154

12-138

16-185

10-129

10-140

40-160

37.4-110

10.6-110

0.781

8.11

11.6

3.50

0.808

8.13

2.17

1.26

1.34

0.895

26.2

1.03

30

30

30

30

30

30

30

30

30

30

30

30

Method:



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**GCMS Semivolatiles - Quality Control** 

Work Order: 1010805

Project: Bautsch - Gray Mine Site

**Batch:** B006388 **Prep:** SW846 3550A

Sample ID: Source:	Matrix Spike Dup (E 1010753-01	3006388-MSD1)	N	/lethod:	SW-846	8270C		Prepped: Analyzed:		3/2010 ( 3/2010 <i>1</i>	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Phenol		2160	380	μg/Kg dry	3807	ND	56.6	43.3-110	21.7	30	
Pyrene		3030	380	μg/Kg dry	3807	ND	79.6	37.6-113	2.61	30	
Surrogate: 2,4,6	-Tribromophenol	90		ug/mL	100.0		90.0	13.9-145			
Surrogate: 2-Flu	orobiphenyl	39		ug/mL	50.00		77.7	28.1-110			
Surrogate: 2-Flu	orophenol	70		ug/mL	100.0		69.8	24.5-110			
Surrogate: Nitrol	benzene-d5	36		ug/mL	50.00		72.9	33.6-110			
Surrogate: Phen	ol-d5	69		ug/mL	100.0		69.3	29.6-110			
Surrogate: Terph	henyl-d14	45		ug/mL	50.00		89.4	35.8-121			



Client: LATA-Kemron Remediation LLC - Albuquerque, NM GCMS Volatiles - Quality Control

Work Order: 1010805

Project: Bautsch - Gray Mine Site

**Batch:** B006439



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Work Order: 1010805

Project: Bautsch - Gray Mine Site

**Batch:** B006439

#### Volatile Organic Compounds, 5035 prep, SB preserve

Sample ID: Blank (B006439-BLK1) Source:		N	/lethod:	SW-846 82	:60B		Prepped: Analyzed:		/2010 ( /2010 1	
Analyte	Result	Limit	Units	Level R	esult	%REC	Limits	RPD	Limit	Qual
1,1,1,2-Tetrachloroethane	ND	10	μg/Kg wet							
1,1,1-Trichloroethane	ND	5.0	μg/Kg wet							
1,1,2,2-Tetrachloroethane	ND	5.0	μg/Kg wet							
1,1,2-Trichloroethane	ND	5.0	μg/Kg wet							
1,1-Dichloroethane	ND	5.0	μg/Kg wet							
1,1-Dichloroethene	ND	5.0	μg/Kg wet							
1,2-Dichloroethane	ND	5.0	μg/Kg wet							
1,2-Dichloropropane	ND	5.0	μg/Kg wet							
2-Butanone	ND	10	μg/Kg wet							
2-Hexanone	ND	5.0	μg/Kg wet							
4-Methyl-2-Pentanone	ND	5.0	μg/Kg wet							
Acetone	ND	50	μg/Kg wet							
Acrolein	ND	100	μg/Kg wet							
Acrylonitrile	ND	100	μg/Kg wet							
Benzene	ND	5.0	μg/Kg wet							
Bromodichloromethane	ND	5.0	μg/Kg wet							
Bromoform	ND	5.0	μg/Kg wet							
Bromomethane	ND	10	μg/Kg wet							
Carbon Disulfide	ND	10	μg/Kg wet							
Carbon tetrachloride	ND	5.0	μg/Kg wet							
Chlorobenzene	ND	5.0	μg/Kg wet							
Chloroethane	ND	10	μg/Kg wet							
Chloroform	ND	5.0	μg/Kg wet							
Chloromethane	ND	10	μg/Kg wet							
cis-1,2-Dichloroethene	ND	5.0	μg/Kg wet							
cis-1,3-Dichloropropene	ND	5.0	μg/Kg wet							
Dibromochloromethane	ND	5.0	μg/Kg wet							
Ethylbenzene	ND	5.0	μg/Kg wet							
m,p-Xylene	ND	5.0	μg/Kg wet							
Methylene chloride	ND	20	μg/Kg wet							
Methyl-t-Butyl Ether	ND	5.0	μg/Kg wet							
o-Xylene	ND	5.0	μg/Kg wet							
Styrene	ND	5.0	μg/Kg wet							
Tetrachloroethene	ND	5.0	μg/Kg wet							
Toluene	ND	5.0	μg/Kg wet							
trans-1,2-Dichloroethene	ND	5.0	μg/Kg wet							
trans-1,3-Dichloropropene	ND	5.0	μg/Kg wet							
Trichloroethene	ND	5.0	μg/Kg wet							
Trichlorofluoromethane	ND	10	μg/Kg wet							

5713 W. 85th Street, Indianapolis, IN 46278-1672 TEL.800.466.5577 TEL.317.872.1375 FAX.317.872.1379

**GCMS Volatiles - Quality Control** 



SW-846 8260B

## **Analytical QC Summary**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

GCMS Volatiles - Quality Control

Prepped:

09/24/2010 08:31

Work Order: 1010805

Sample ID:

Project: Bautsch - Gray Mine Site

Blank (B006439-BLK1)

**Batch:** B006439

0		-						00/0	1/2040	10.40
Source:	D It	1 ::4	1.1-24-	11	D 14		Analyzed:		1/2010 1	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Vinyl Acetate	ND	10	μg/Kg wet							
Vinyl chloride	ND	10	μg/Kg wet							
Total 1,2-Dichloroethene	ND	10	μg/Kg wet							
Total Xylenes	ND	5.0	μg/Kg wet							
Surrogate: 1,2-Dichloroethane-d4	52		μg/L	50.00		105	51.7-162			
Surrogate: 4-Bromofluorobenzene	49		μg/L	50.00		98.9	57.4-135			
Surrogate: Dibromofluoromethane	50		μg/L	50.00		101	63.5-139			
Surrogate: Toluene-d8	52		μg/L	50.00		104	66.6-143			
<b>Sample ID:</b> LCS (B006439-BS1)		N	/lethod:	SW-846	8260B		Prepped:	09/24	1/2010 (	08:31
Source:							Analyzed:	09/24	1/2010 1	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,1,1,2-Tetrachloroethane	52.8		μg/L	50.00		106	73.2-127		30	
1,1,1-Trichloroethane	52.6		μg/L	50.00		105	68.4-134		30	
1,1,2,2-Tetrachloroethane	48.5		μg/L	50.00		97.0	67.8-115		30	
1,1,2-Trichloroethane	50.7		μg/L	50.00		101	74-114		30	
1,1-Dichloroethane	53.4		μg/L	50.00		107	70.3-121		30	
1,1-Dichloroethene	44.5		μg/L	50.00		89.1	54-119		30	
1,2-Dichloroethane	51.9		μg/L	50.00		104	65.5-129		30	
1,2-Dichloropropane	52.8		μg/L	50.00		106	68.6-124		30	
2-Butanone	46.4		μg/L	50.00		92.9	55.8-114		30	
2-Hexanone	44.6		μg/L	50.00		89.3	49.9-110			
4-Methyl-2-Pentanone	48.1		μg/L	50.00		96.2	57-114		30	
Acetone	50.6		μg/L	50.00		101	37.2-135		30	
Acrylonitrile	54.5		μg/L	50.00		109	45.3-148		30	
Benzene	51.4		μg/L	50.00		103	71.8-123		30	
Bromodichloromethane	52.7		μg/L	50.00		105	69.4-132		30	
Bromoform	40.5		μg/L	50.00		80.9	54.7-123		30	
Bromomethane	27.7		μg/L	50.00		55.4	10-143		30	
Carbon Disulfide	59.8		μg/L	50.00		120	80-159		30	
Carbon tetrachloride	53.6		μg/L	50.00		107	68.6-138		30	
Chlorobenzene	53.4		μg/L	50.00		107	80.1-122		30	
Chloroethane	59.6		μg/L	50.00		119	53.6-121		30	
Chloroform	53.0		μg/L	50.00		106	71.9-127		30	
Chloromethane	42.6		μg/L	50.00		85.3	28.3-124		30	
cis-1,2-Dichloroethene	53.8		μg/L	50.00		108	81.5-132		30	
cis-1,3-Dichloropropene	53.8		μg/L	50.00		108	74.9-117		30	
Dibromochloromethane	45.6		μg/L	50.00		91.2	65.1-132		30	
Ethylbenzene	55.0		μg/L	50.00		110	77.1-124		30	
m,p-Xylene	109		μg/L	100.0		109	77.1-124		30	
Methylene chloride	50.7		µg/∟	100.0		100	11.7.120		50	

Method:



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

GCMS Volatiles - Quality Control

Work Order: 1010805

Project: Bautsch - Gray Mine Site

**Batch:** B006439

Sample ID:	LCS (B006439-BS1)		N	lethod:	SW-846	8260B		Prepped:	09/24	/2010 (	)8:31
Source:								Analyzed:	09/24	/2010 1	10:42
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Methyl-t-Butyl Et	ther	51.1		μg/L	50.00		102	77.8-120		30	
o-Xylene		53.0		μg/L	50.00		106	74.9-124		30	
Styrene		54.7		μg/L	50.00		109	77.7-117		30	
Tetrachloroether	ne	57.2		μg/L	50.00		114	81.9-127		30	
Toluene		53.8		μg/L	50.00		108	76.7-122		30	
trans-1,2-Dichlor	roethene	51.1		μg/L	50.00		102	67.6-126		30	
trans-1,3-Dichlor	ropropene	58.4		μg/L	50.00		117	77.6-129		30	
Trichloroethene		53.3		μg/L	50.00		107	73.1-131		30	
Trichlorofluorom	ethane	54.8		μg/L	50.00		110	61.3-140		30	
Vinyl Acetate		69.9		μg/L	50.00		140	52.4-154		30	
Vinyl chloride		41.1		μg/L	50.00		82.3	48.5-124		30	
Surrogate: 1,2-D	Dichloroethane-d4	49		μg/L	50.00		97.4	51.7-162			
Surrogate: 4-Bro	omofluorobenzene	51		μg/L	50.00		102	57.4-135			
Surrogate: Dibro	omofluoromethane	48		μg/L	50.00		97.0	63.5-139			
Surrogate: Tolue	ene-d8	52		μg/L	50.00		104	66.6-143			
Sample ID:	Matrix Spike (B006439-	-MS1)	N	lethod:	SW-846	8260B		Prepped:	09/24	/2010 (	08:31
Source:	1010834-01	,						Analyzed:	09/24	/2010 1	15:40
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual

Sample ID: Source:	Matrix Spike (B006439 1010834-01	9-MS1)	M	lethod:	SW-846	8260B		Prepped: Analyzed:		/2010 C	
Analyte	.0.000.0.	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,1,1,2-Tetrachlo	roethane	57.4		μg/L	50.00	ND	115	52.5-130		30	
1,1,1-Trichloroeth	nane	53.7		μg/L	50.00	ND	107	46.3-135		30	
1,1,2,2-Tetrachlo	roethane	65.7		μg/L	50.00	ND	131	56-146		30	
1,1,2-Trichloroeth	nane	56.5		μg/L	50.00	ND	113	60.2-129		30	
1,1-Dichloroethar	ne	66.5		μg/L	50.00	ND	133	59-131		30	S
1,1-Dichloroether	ne	54.3		μg/L	50.00	ND	109	39.1-116		30	
1,2-Dichloroetha	ne	56.0		μg/L	50.00	ND	112	54.7-126		30	
1,2-Dichloropropa	ane	58.6		μg/L	50.00	ND	117	62.9-118		30	
2-Butanone		49.7		μg/L	50.00	ND	99.5	38.1-138		30	
2-Hexanone		45.2		μg/L	50.00	ND	90.3	34-149		30	
4-Methyl-2-Penta	anone	60.2		μg/L	50.00	ND	120	31.1-175		30	
Acetone		103		μg/L	50.00	34.0	139	27.9-161		30	
Acrylonitrile		56.8		μg/L	50.00	ND	114	39.4-186		30	
Benzene		60.4		μg/L	50.00	3.50	114	54.8-120		30	
Bromodichlorome	ethane	54.8		μg/L	50.00	ND	110	54.6-122		30	
Bromoform		37.2		μg/L	50.00	ND	74.3	31-122		30	
Bromomethane		-50.0		μg/L	50.00	ND		10.8-142		30	
Carbon Disulfide		67.5		μg/L	50.00	1.68	132	16-177		30	
Carbon tetrachlor	ride	58.8		μg/L	50.00	ND	118	41.6-132		30	
Chlorobenzene		53.9		μg/L	50.00	ND	108	36.8-129		30	
Chloroethane		71.3		μg/L	50.00	ND	143	42.4-126		30	S
Chloroform		60.4		μg/L	50.00	ND	121	64-123		30	



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

GCMS Volatiles - Quality Control

Work Order: 1010805

Project: Bautsch - Gray Mine Site

**Batch:** B006439

Sample ID:	Matrix Spike (B0064 1010834-01	39-MS1)	N	lethod:	SW-846	8260B		Prepped:	09/24/20 <sup>-</sup> 09/24/20 <sup>-</sup>	
Source: Analyte	1010034-01	Result	Limit	Units	Level	Result	%REC	Analyzed: Limits		nit Qu
Chloromethane		51.9	Liiiii	µg/L	50.00	ND	104	45.3-143		1111 QU 10
cis-1,2-Dichloroe	thene	59.8		μg/L	50.00	ND	120	67-126		80
cis-1,3-Dichlorop		62.4		μg/L	50.00	ND	125	49.9-139		80
Dibromochlorome	•	47.4		μg/L	50.00	ND	94.8	52.1-132		80
Ethylbenzene		62.4		μg/L	50.00	2.79	119	33.4-133		80
m,p-Xylene		117		μg/L	100.0	2.96	114	30.5-132		80
Methylene chloric	de	57.4		μg/L	50.00	1.99	111	53.8-125	;	80
Methyl-t-Butyl Eth		55.0		μg/L	50.00	ND	110	41.1-144		80
o-Xylene		57.4		μg/L	50.00	1.15	112	38-123	;	80
Styrene		47.4		μg/L	50.00	ND	94.9	16.9-131	;	80
Tetrachloroethen	e	60.4		μg/L	50.00	ND	121	43-135	;	80
Toluene		69.7		μg/L	50.00	8.11	123	35.2-143	;	80
trans-1,2-Dichlore	oethene	59.9		μg/L	50.00	ND	120	53.7-120	;	80
trans-1,3-Dichlore	opropene	65.0		μg/L	50.00	ND	130	42-148	;	80
Trichloroethene		58.1		μg/L	50.00	ND	116	37.1-145	;	80
Trichlorofluorome	ethane	67.4		μg/L	50.00	ND	135	40.5-141	;	80
Vinyl Acetate		73.8		μg/L	50.00	ND	148	22.5-184	;	80
Vinyl chloride		52.7		μg/L	50.00	ND	105	54.5-143	;	80
Surrogate: 1,2-Di	ichloroethane-d4	49		μg/L	50.00		98.4	51.7-162		
Surrogate: 4-Bro	mofluorobenzene	46		μg/L	50.00		91.7	57.4-135		
Surrogate: Dibroi	mofluoromethane	49		μg/L	50.00		97.2	63.5-139		
Surrogate: Tolue	ne-d8	57		μg/L	50.00		114	66.6-143		

Sample ID:	Matrix Spike (B006	8439-MS2)	N	lethod:	SW-846	8260B		Prepped:	09/24/2 09/24/2		
Source: Analyte	1010092-02	Result	Limit	Units	Level	Result	%REC	Analyzed: Limits	RPD	Limit	Qual
1,1,1,2-Tetrachlo	vroothano	55.8	LIIIII	µg/L	50.00	ND	112	52.5-130	KFD	30	Quai
1,1,1-Trichloroet		57.3			50.00	ND	115	46.3-135		30	
				μg/L							
1,1,2,2-Tetrachlo	proethane	67.8		μg/L	50.00	ND	136	56-146		30	
1,1,2-Trichloroet	hane	55.3		μg/L	50.00	ND	111	60.2-129		30	
1,1-Dichloroetha	ne	61.1		μg/L	50.00	ND	122	59-131		30	
1,1-Dichloroethe	ne	51.8		μg/L	50.00	ND	104	39.1-116		30	
1,2-Dichloroetha	ne	51.0		μg/L	50.00	ND	102	54.7-126		30	
1,2-Dichloroprop	ane	55.6		μg/L	50.00	ND	111	62.9-118		30	
2-Butanone		49.3		μg/L	50.00	5.82	87.0	38.1-138		30	
2-Hexanone		53.3		μg/L	50.00	ND	107	34-149		30	
4-Methyl-2-Penta	anone	57.9		μg/L	50.00	ND	116	31.1-175		30	
Acetone		81.1		μg/L	50.00	66.9	28.4	27.9-161		30	
Acrylonitrile		52.9		μg/L	50.00	ND	106	39.4-186		30	
Benzene		56.2		μg/L	50.00	3.26	106	54.8-120		30	
Bromodichlorom	ethane	52.3		μg/L	50.00	ND	105	54.6-122		30	



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

GCMS Volatiles - Quality Control

Work Order: 1010805

Project: Bautsch - Gray Mine Site

**Batch:** B006439

Sample ID: Source:	Matrix Spike (B006439 1010692-02	9-MS2)	M	lethod:	SW-846	8260B		Prepped: Analyzed:		1/2010 ( 1/2010 1	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Bromoform		37.2		μg/L	50.00	ND	74.5	31-122		30	
Bromomethane		45.3		μg/L	50.00	ND	90.6	10.8-142		30	
Carbon Disulfide		65.5		μg/L	50.00	2.59	126	16-177		30	
Carbon tetrachlori	ide	56.0		μg/L	50.00	ND	112	41.6-132		30	
Chlorobenzene		52.0		μg/L	50.00	ND	104	36.8-129		30	
Chloroethane		78.6		μg/L	50.00	ND	157	42.4-126		30	S
Chloroform		56.0		μg/L	50.00	ND	112	64-123		30	
Chloromethane		49.6		μg/L	50.00	ND	99.2	45.3-143		30	
cis-1,2-Dichloroetl	hene	56.1		μg/L	50.00	ND	112	67-126		30	
cis-1,3-Dichloropre	ropene	57.5		μg/L	50.00	ND	115	49.9-139		30	
Dibromochlorome	thane	47.4		μg/L	50.00	ND	94.8	52.1-132		30	
Ethylbenzene		60.9		μg/L	50.00	1.62	119	33.4-133		30	
m,p-Xylene		113		μg/L	100.0	1.62	112	30.5-132		30	
Methylene chloride	е	55.8		μg/L	50.00	2.98	106	53.8-125		30	
Methyl-t-Butyl Eth	er	53.4		μg/L	50.00	ND	107	41.1-144		30	
o-Xylene		57.3		μg/L	50.00	ND	115	38-123		30	
Styrene		43.5		μg/L	50.00	ND	87.0	16.9-131		30	
Tetrachloroethene	e	59.4		μg/L	50.00	ND	119	43-135		30	
Toluene		63.9		μg/L	50.00	5.44	117	35.2-143		30	
trans-1,2-Dichloro	ethene	55.0		μg/L	50.00	ND	110	53.7-120		30	
trans-1,3-Dichloro	propene	60.8		μg/L	50.00	ND	122	42-148		30	
Trichloroethene		53.2		μg/L	50.00	ND	106	37.1-145		30	
Trichlorofluoromet	thane	64.5		μg/L	50.00	ND	129	40.5-141		30	
Vinyl Acetate		72.0		μg/L	50.00	ND	144	22.5-184		30	
Vinyl chloride		47.8		μg/L	50.00	ND	95.6	54.5-143		30	
Surrogate: 1,2-Did	chloroethane-d4	47		μg/L	50.00		94.9	51.7-162			
Surrogate: 4-Bron	mofluorobenzene	46		μg/L	50.00		92.1	57.4-135			
Surrogate: Dibron	nofluoromethane	49		μg/L	50.00		97.3	63.5-139			
Surrogate: Toluer	ne-d8	57		μg/L	50.00		115	66.6-143			



Client: LATA-Kemron Remediation LLC - Albuquerque, NM M

Metals - Quality Control

Work Order: 1010805

Project: Bautsch - Gray Mine Site

**Batch:** B006444 **Prep:** SW846 3050B

Ī	ota	ΙN	Иe	tal	ls	bv	IC	P

Sample ID: Source:	Blank (B006444-BLK1)		ľ	Method:	SW-846	6010B		Prepped: Analyzed:		1/2010 ( 5/2010 (	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qua
Arsenic		ND	0.50	mg/Kg wet							
Barium		ND	0.10	mg/Kg wet							
Cadmium		ND	0.10	mg/Kg wet							
Chromium		ND	0.15	mg/Kg wet							
Lead		ND	0.38	mg/Kg wet							
Selenium		ND	1.5	mg/Kg wet							
Silver		ND	0.50	mg/Kg wet							
Sample ID:	LCS (B006444-BS1)		ı	Method:	SW-846	6010B		Prepped:	09/24	1/2010 (	7:55
Source:								Analyzed:	09/25	5/2010 (	1:19
A I		D 14	1 ::4	1.1	11	D I4	0/ DEO	1 1	DDD	1	_

Sample ID: Source:	LCS (B006444-BS1)		ľ	Method:	SW-846	6010B		Prepped: Analyzed:		2010 C	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic		233	1.0	mg/Kg wet	238.0		97.9	65.1-118		20	
Barium		246	0.20	mg/Kg wet	243.0		101	68.3-118		20	
Cadmium		171	0.20	mg/Kg wet	185.0		92.2	64.9-112		20	
Chromium		108	0.30	mg/Kg wet	104.0		103	65.8-124		20	
Lead		138	0.75	mg/Kg wet	154.0		89.8	62.9-110		20	
Selenium		134	3.0	mg/Kg wet	156.0		86.2	54.9-110		20	
Silver		65.1	1.0	mg/Kg wet	73.20		88.9	56.8-113		20	

Sample ID: Source:	Matrix Spike (B006444-MS1) 1010805-01	ı	Method:	SW-846	6010B		Prepped: Analyzed:		2010 C	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	125	0.63	mg/Kg dry	125.3	6.06	94.8	75-125		20	
Barium	295	0.13	mg/Kg dry	137.8	154	102	75-125		20	
Cadmium	12.4	0.13	mg/Kg dry	12.53	0.200	97.1	75-125		20	
Chromium	138	0.19	mg/Kg dry	125.3	12.7	100	75-125		20	
Lead	135	0.47	mg/Kg dry	125.3	17.1	94.2	75-125		20	
Selenium	115	1.9	mg/Kg dry	125.3	ND	92.0	75-125		20	
Silver	11.2	0.63	mg/Kg dry	12.53	0.520	85.5	75-125		20	

Sample ID: Source:	Matrix Spike Dup (B006444-MSD1) 1010805-01	ı	Method:	SW-846	6010B		Prepped: Analyzed:		4/2010 C	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	125	0.61	mg/Kg dry	121.6	6.06	97.5	75-125	0.0859	20	
Barium	299	0.12	mg/Kg dry	133.8	154	108	75-125	1.36	20	
Cadmium	12.2	0.12	mg/Kg dry	12.16	0.200	98.9	75-125	1.15	20	
Chromium	138	0.18	mg/Kg dry	121.6	12.7	103	75-125	0.271	20	
Lead	134	0.46	mg/Kg dry	121.6	17.1	96.3	75-125	0.664	20	
Selenium	114	1.8	mg/Kg dry	121.6	ND	93.4	75-125	1.50	20	
Silver	11.9	0.61	mg/Kg dry	12.16	0.520	93.6	75-125	5.74	20	



Client: LATA-Kemron Remediation LLC - Albuquerque, NM Metals - Quality Control

Work Order: 1010805

Project: Bautsch - Gray Mine Site

**Batch:** B006453 **Prep:** SW-846 7471

Total	Moroury	hv	CVAA
ıotaı	Mercurv	DΥ	CVAA

Total Wercur	y by CVAA									
Sample ID: Source:	Blank (B006453-BLK1)	N	flethod:	SW-846	7471A		Prepped: Analyzed:		4/2010 ( 4/2010 1	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	ND	0.0010	mg/Kg wet							
Sample ID: Source:	LCS (B006453-BS1)	N	/lethod:	SW-846	7471A		Prepped: Analyzed:		4/2010( 4/2010 <i>(</i>	08:20 13:58
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	6.01	2.0	mg/Kg wet	7.070		85.0	41.9-122			
Sample ID: Source:	Matrix Spike (B006453-MS1) 10I0805-01	N	/lethod:	SW-846	7471A		Prepped: Analyzed:		4/2010( 4/2010(	08:20 14:02
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	0.0993	0.042	mg/Kg dry	0.08353	0.0233	90.9	70-130		20	
Sample ID: Source:	Matrix Spike Dup (B006453-MSD1) 10I0805-01	N	flethod:	SW-846	7471A		Prepped: Analyzed:		4/2010( 4/2010 <i>~</i>	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	0.117	0.042	mg/Kg dry	0.08353	0.0233	112	70-130	16.5	20	



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Wet Chemistry - Quality Control

Work Order: 1010805

Project: Bautsch - Gray Mine Site

**Batch:** B006461

#### **Percent Solids**

Sample ID: Source:	Duplicate (B006461-DUP 1010834-02	1)	M	ethod:	SM2540	)B Rev 18	•	Prepped: Analyzed:		4/2010 <i>1</i> 7/2010 (	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Percent Solids		73.4	0.10	wt%		72.1			1.78	20	

	Sa	Samples	X 250	West 8	250 West 84th Drive		713 We	[ ] 5713 West 85th Street	34		Chain	of Custo	Chain of Custody Record	
	Submitted to:	ed 10:	Mer	TIIVIII E.	Merrillville, IN 46410	٠.	dianap	Indianapolis, IN 46278	78					
			F E	Tel: 219-769-8378 Fax: 219-769-1664	9-8378	. <b>- E</b>	el: 317- ax: 317-	Tel: 317-872-1375 Fax: 317-872-1379			Number		(A) (A) (A) (A) (A) (A) (A) (A) (A) (A)	
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* Pres	* Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify) ** Preservative Types: (1) HNO3, (2) H2SO4, (3) HCI, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved	il, Wipe, D 3) HCI, (4)	rinking NaOH,	Water ( (5) Zinc	DW), Ground : Acetate, (6)	water (GW), S Methanol, (7)	urface V Sodium	Vater (SW), 1 Bisulfate, (8)	Naste Wate Sodium Th	ar (WW), O niosulfate, (	ther (specify 9) Hexane,	) (U) Unpreser	ved	
09/23/2010	Client Samule ID		- 91	<u> </u>	befoel			Requested Analyses	2	SAULW S-			ForL	For Lab Use Only
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Work Order No.: 1010668

September 27, 2010

LATA-Kemron Remediation LLC - Albuquerque, N 2424 Louisiana Blvd. NE, Suite 400 Albuquerque, NM 87110

Re: Bautsch - Gray Mine Site

Dear Tom Urmson:

Microbac Laboratories, Inc. - Chicagoland Division received 1 sample(s) on 9/18/2010 10:20:00AM for the analyses presented in the following report as Work Order 10I0668.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please feel free to contact us.

Sincerely,

Microbac Laboratories, Inc.

u pu

Deborah Griffiths

Senior Project Manager



#### **WORK ORDER SAMPLE SUMMARY**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Project: Bautsch - Gray Mine Site

**Lab Order:** 1010668

 Lab Sample ID
 Client Sample ID
 Tag Number
 Collection Date
 Date Received

 10I0668-01
 TS1
 09/17/2010 16:10
 9/18/2010 10:20:00AM

Monday, September 27, 2010

Date:



CASE NARRATIVE Date: Monday, September 27, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Project: Bautsch - Gray Mine Site

**Lab Order:** 1010668

The Matrix Spike and Matrix Spike Duplicate performed on this sample failed the accuracy criteria for Barium with a high bias. The precision criteria were met. This data is indicative of a bias related to sample matrix.



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 TS1
 Work Order/ID:
 10I0668-01

 Sample Description:
 Sampled:
 09/17/2010 16:10

Matrix: Solid Received: 09/18/2010 10:20

Analyses	AT	Result	RL	Qual Units	DF	Analyzed
		Method: SW-846 808	2		Ar	nalyst: <b>jw</b>
Polychlorinated Biphenyls	F	rep Method: SW846 3550	)		Prep Date/	Time: 09/21/2010 06:0
Aroclor 1016	Α	ND	39	μg/Kg dry	1	09/21/2010 18:05
Aroclor 1221	А	ND	39	μg/Kg dry	1	09/21/2010 18:05
Aroclor 1232	А	ND	39	μg/Kg dry	1	09/21/2010 18:05
Aroclor 1242	А	ND	39	μg/Kg dry	1	09/21/2010 18:05
Aroclor 1248	А	ND	39	μg/Kg dry	1	09/21/2010 18:05
Aroclor 1254	А	ND	39	μg/Kg dry	1	09/21/2010 18:05
Aroclor 1260	А	ND	39	μg/Kg dry	1	09/21/2010 18:05
Aroclor 1262	А	ND	39	μg/Kg dry	1	09/21/2010 18:05
Aroclor 1268	А	ND	39	μg/Kg dry	1	09/21/2010 18:05
Total PCB's	А	ND	39	μg/Kg dry	1	09/21/2010 18:05
Surr: Decachlorobiphenyl	S	80.00	38-128	%REC	1	09/21/2010 18:05
Surr: Tetrachloro-m-xylene	S	85.00	40-130	%REC	1	09/21/2010 18:05

		Method: SW-846 82			Analyst: <b>cr</b> Prep Date/Time: <b>09/23/2010 07:21</b>			
emivolatile Organic Compounds	Р	rep Method: SW846 355	50A	P				
1,2,4-Trichlorobenzene	A	ND	390	μg/Kg dry	1	09/23/2010 14:24		
1,2-Dichlorobenzene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24		
1,2-Diphenyl-hydrazine	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24		
1,3-Dichlorobenzene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24		
1,4-Dichlorobenzene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24		
2,2'-oxybis(1-chloropropane)	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24		
2,4,5-Trichlorophenol	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24		
2,4,6-Trichlorophenol	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24		
2,4-Dichlorophenol	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24		
2,4-Dimethylphenol	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24		
2,4-Dinitrophenol	Α	ND	1900	μg/Kg dry	1	09/23/2010 14:24		
2,4-Dinitrotoluene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24		
2,6-Dichlorophenol	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24		
2,6-Dinitrotoluene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24		
2-Chloronaphthalene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24		
2-Chlorophenol	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24		
2-Methyl-4,6-dinitrophenol	Α	ND	1900	μg/Kg dry	1	09/23/2010 14:24		
2-Methylnaphthalene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24		
2-Methylphenol	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24		
2-Nitroaniline	Α	ND	1900	μg/Kg dry	1	09/23/2010 14:24		
2-Nitrophenol	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24		
3,3´-Dichlorobenzidine	Α	ND	1900	μg/Kg dry	1	09/23/2010 14:24		
3,4-Benzofluoranthene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24		
3/4-Methylphenol	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24		
3-Nitroaniline	А	ND	390	μg/Kg dry	1	09/23/2010 14:24		
4,6-Dinitro-2-methylphenol	Α	ND	1900	μg/Kg dry	1	09/23/2010 14:24		
4,6-Dinitro-o-cresol	А	ND	1900	μg/Kg dry	1	09/23/2010 14:24		

Monday, September 27, 2010

Date:



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 TS1
 Work Order/ID:
 1010668-01

 Sample Description:
 Sampled:
 09/17/2010
 16:10

Matrix: Solid Received: 09/18/2010 10:20

nalyses	AT	Result	RL	Qual Units	DF	Analyzed
Method: SW-846 8270C						
emivolatile Organic Compounds	F	Prep Method: SW846 3550	)A		Prep Date/	Time: <b>09/23/2010 07:2</b>
4-Bromophenyl phenyl ether	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
4-Chloro-3-methylphenol	Α	ND	770	μg/Kg dry	1	09/23/2010 14:24
4-Chloroaniline	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
4-Chlorophenyl phenyl ether	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
4-Nitroaniline	Α	ND	1900	μg/Kg dry	1	09/23/2010 14:24
4-Nitrophenol	Α	ND	1900	μg/Kg dry	1	09/23/2010 14:24
Acenaphthene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Acenaphthylene	А	ND	390	μg/Kg dry	1	09/23/2010 14:24
Acetophenone	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Aniline	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Anthracene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Benzidine	Α	ND	1900	μg/Kg dry	1	09/23/2010 14:24
Benzo[a]anthracene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Benzo[a]pyrene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Benzo[b]fluoranthene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Benzo[g,h,i]perylene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Benzo[k]fluoranthene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Benzoic acid	Α	ND	1900	μg/Kg dry	1	09/23/2010 14:24
Benzyl alcohol	Α	ND	770	μg/Kg dry	1	09/23/2010 14:24
beta-Chloronaphthalene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Bis(2-chloroethoxy)methane	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Bis(2-chloroethyl)ether	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Bis(2-ethylhexyl)phthalate	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Butyl benzyl phthalate	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Carbazole	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Chrysene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Di(2-ethylhexyl) phthalate	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Dibenz[a,h]anthracene	А	ND	390	μg/Kg dry	1	09/23/2010 14:24
Dibenzofuran	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Diethyl phthalate	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Dimethyl phthalate	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Di-n-butyl phthalate	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Di-n-octyl phthalate	А	ND	390	μg/Kg dry	1	09/23/2010 14:24
Fluoranthene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Fluorene	А	ND	390	μg/Kg dry	1	09/23/2010 14:24
Hexachlorobenzene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Hexachlorobutadiene	А	ND	390	μg/Kg dry	1	09/23/2010 14:24
Hexachlorocyclopentadiene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Hexachloroethane	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Indeno[1,2,3cd]pyrene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Isophorone	A	ND	390	μg/Kg dry	1	09/23/2010 14:24

Monday, September 27, 2010

Date:



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 TS1
 Work Order/ID:
 10I0668-01

 Sample Description:
 Sampled:
 09/17/2010 16:10

Date:

Matrix: Solid Received: 09/18/2010 10:20

Analyses	AT	Result	RL	Qual Units	DF	Analyzed
		Method: SW-846 827	'0C		An	alyst: <b>cr</b>
Semivolatile Organic Compounds	F	Prep Method: SW846 355	0A		Prep Date/	Time: 09/23/2010 07:21
m-Dichlorobenzene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Naphthalene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Nitrobenzene	А	ND	390	μg/Kg dry	1	09/23/2010 14:24
N-Nitrosodimethylamine	А	ND	390	μg/Kg dry	1	09/23/2010 14:24
N-Nitrosodi-n-propylamine	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
N-Nitrosodiphenylamine	А	ND	390	μg/Kg dry	1	09/23/2010 14:24
o-Chlorophenol	А	ND	390	μg/Kg dry	1	09/23/2010 14:24
p-Chloroaniline	А	ND	770	μg/Kg dry	1	09/23/2010 14:24
p-Chloro-m-cresol	А	ND	770	μg/Kg dry	1	09/23/2010 14:24
p-Cresol	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Pentachlorophenol	Α	ND	1900	μg/Kg dry	1	09/23/2010 14:24
Phenanthrene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Phenol	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Pyrene	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Pyridine	Α	ND	390	μg/Kg dry	1	09/23/2010 14:24
Total Cresol	М	ND	390	μg/Kg dry	1	09/23/2010 14:24
Surr: 2,4,6-Tribromophenol	S	75.30	13.9-145	%REC	1	09/23/2010 14:24
Surr: 2-Fluorobiphenyl	S	75.20	28.1-110	%REC	1	09/23/2010 14:24
Surr: 2-Fluorophenol	S	60.40	24.5-110	%REC	1	09/23/2010 14:24
Surr: Nitrobenzene-d5	S	68.60	33.6-110	%REC	1	09/23/2010 14:24
Surr: Phenol-d5	S	71.30	29.6-110	%REC	1	09/23/2010 14:24
Surr: Terphenyl-d14	S	80.80	35.8-121	%REC	1	09/23/2010 14:24

	Method: SW-846 8260B	
Valatila Organic Compounds 5035 prop SR processy		

Analyst: <b>JLN</b>
Prep Date/Time: 09/24/2010 08:31

Monday, September 27, 2010

olatile Organic Compounds, 5035 prep, SB preser	V€				rep Date/	Time.09/24/2010 06:31
1,1,1,2-Tetrachloroethane	Α	ND	5.2	μg/Kg dry	1	09/24/2010 13:10
1,1,1-Trichloroethane	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
1,1,2,2-Tetrachloroethane	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
1,1,2-Trichloroethane	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
1,1-Dichloroethane	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
1,1-Dichloroethene	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
1,2-Dichloroethane	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
1,2-Dichloropropane	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
2-Butanone	Α	8.3	5.2	μg/Kg dry	1	09/24/2010 13:10
2-Hexanone	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
4-Methyl-2-Pentanone	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
Acetone	Α	91	26	μg/Kg dry	1	09/24/2010 13:10
Acrolein	Α	ND	52	μg/Kg dry	1	09/24/2010 13:10
Acrylonitrile	Α	ND	52	μg/Kg dry	1	09/24/2010 13:10
Benzene	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
Bromodichloromethane	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
Bromoform	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10



Date:

Monday, September 27, 2010

### **Analytical Results**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 TS1
 Work Order/ID:
 1010668-01

 Sample Description:
 Sampled:
 09/17/2010
 16:10

Matrix: Solid Received: 09/18/2010 10:20

nalyses	AT	Result	RL	Qual Units	DF	Analyzed
		Method: SW-846 826	0B		An	alyst: <b>JLN</b>
olatile Organic Compounds, 5035 prep,	SB preserve				Prep Date/	Time: 09/24/2010 08:3
Bromomethane	Α	ND	5.2	μg/Kg dry	1	09/24/2010 13:10
Carbon Disulfide	Α	ND	5.2	μg/Kg dry	1	09/24/2010 13:10
Carbon tetrachloride	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
Chlorobenzene	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
Chloroethane	Α	ND	5.2	μg/Kg dry	1	09/24/2010 13:10
Chloroform	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
Chloromethane	А	ND	5.2	μg/Kg dry	1	09/24/2010 13:10
cis-1,2-Dichloroethene	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
cis-1,3-Dichloropropene	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
Dibromochloromethane	А	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
Ethylbenzene	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
m,p-Xylene	А	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
Methylene chloride	А	ND	10	μg/Kg dry	1	09/24/2010 13:10
Methyl-t-Butyl Ether	А	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
o-Xylene	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
Styrene	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
Tetrachloroethene	А	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
Toluene	Α	2.8	2.6	μg/Kg dry	1	09/24/2010 13:10
trans-1,2-Dichloroethene	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
trans-1,3-Dichloropropene	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
Trichloroethene	Α	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
Trichlorofluoromethane	А	ND	5.2	μg/Kg dry	1	09/24/2010 13:10
Vinyl Acetate	Α	ND	5.2	μg/Kg dry	1	09/24/2010 13:10
Vinyl chloride	А	ND	5.2	μg/Kg dry	1	09/24/2010 13:10
Total 1,2-Dichloroethene	M	ND	5.2	μg/Kg dry	1	09/24/2010 13:10
Total Xylenes	M	ND	2.6	μg/Kg dry	1	09/24/2010 13:10
Surr: 1,2-Dichloroethane-d4	S	107.00	51.7-162	%REC	1	09/24/2010 13:10
Surr: 4-Bromofluorobenzene	S	93.10	57.4-135	%REC	1	09/24/2010 13:10
Surr: Dibromofluoromethane	S	101.00	63.5-139	%REC	1	09/24/2010 13:10
Surr: Toluene-d8	S	110.00	66.6-143	%REC	1	09/24/2010 13:10

			Method: <b>SW-846</b> 6	010B		Aı	nalyst: <b>SA</b>
Т	otal Metals by ICP	P	rep Method: SW846 30	50B	Pr	ep Date	/Time: 09/20/2010 08:44
	Arsenic	Α	3.0	0.57	mg/Kg dry	1	09/22/2010 20:40
	Barium	Α	6.7	0.11	mg/Kg dry	1	09/22/2010 20:40
	Cadmium	Α	0.22	0.11	mg/Kg dry	1	09/22/2010 20:40
	Chromium	Α	2.3	0.17	mg/Kg dry	1	09/22/2010 20:40
	Lead	Α	22	0.43	mg/Kg dry	1	09/22/2010 20:40
	Selenium	Α	5.9	1.7	mg/Kg dry	1	09/22/2010 20:40
	Silver	Α	ND	0.57	mg/Kg dry	1	09/22/2010 20:40

Method: **SW-846 7471A**Prep Method: **SW-846 7471** 

Analyst: **SA**Prep Date/Time: **09/20/2010 08:46** 



Analytical Results Date: Monday, September 27, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

Client Sample ID: TS1 Work Order/ID: 1010668-01

 Sample Description:
 Sampled:
 09/17/2010
 16:10

 Matrix:
 Solid
 Received:
 09/18/2010
 10:20

Analyses AT Result RL Qual Units DF Analyzed

Method: SW-846 7471A Analyst: SA

 Total Mercury by CVAA
 Prep Method: SW-846 7471
 Prep Date/Time: 09/20/2010 08:46

 Mercury
 A
 ND
 0.044
 mg/Kg dry
 1
 09/21/2010 13:29

Method: SM2540B Rev 18 Analyst: cstas
Percent Solids Prep Date/Time: 09/20/2010 12:09

Percent Solids A 86 0.10 wt% 1 09/21/2010 6:10



#### FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

NA = Not Analyzed mg/L = Milligrams per Liter (ppm)

mg/Kg = Milligrams per Kilogram (ppm)

U = Undetected

J = Analyte concentration detected between RL and MDL (Metals / Organics)

B = Detected in the associated method Blank at a concentration above the routine PQL/RL

D = Dilution performed on sample

ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)

E = Value above quantitation range

H = Analyte was prepared and/or analyzed outside of the analytical method holding time

= Matrix Interference

R = RPD outside accepted recovery limits
S = Spike recovery outside recovery limits

Surr = Surrogate
DF = Dilution Factor

#### **ANALYTE TYPES**

A,B = Target Analyte
I = Internal Standard
M = Summation Analyte

S = Surrogate

T = Tentatively Identified Compound (TIC, concentration estimated)

#### QC SAMPLE IDENTIFICATIONS

MBLK	=	Method Blank	ICSA	=	Interference Check Standard "A"
DUP	=	Method Duplicate	ICSAB	=	Interference Check Standard "AB"
LCS	=	Laboratory Control Sample	LCSD	=	Laboratory Control Sample Duplicate
BS	=	Method Blank Spike	BSD	=	Method Blank Spike Duplicate
MS	=	Matrix Spike	MSD	=	Matrix Spike Duplicate
ICB	=	Initial Calibration Blank	CCB	=	Continuing Calibration Blank
ICV	=	Initial Calibration Verification	CCV	=	Continuing Calibration Verification
PDS	=	Post Digestion Spike	SD	=	Serial Dilution
OPR	=	Ongoing Precision and Recovery Standa	ard		

#### CERTIFICATIONS

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

Illinois EPA for the analysis wastewater and solid waste in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (accreditation #100435)

Illinois Department of Public Health for the microbiological analysis of drinking water (registry #1755266)

Indiana DEM approved support laboratory for solid waste and wastewater analyses

Indiana SDH for the chemical analysis of drinking water (lab #C-45-03)

Indiana SDH for the microbiological analysis of drinking water (lab #M-45-8)

Kentucky DEP for the chemical analysis of drinking water (lab #90147)

Kentucky EPPC for the analysis of samples applicable to the Underground Storage Tank program (lab #75)

\*New York SDH for the chemical analysis of air and emissions (lab #11909)

North Carolina DENR for the environmental analysis for NPDES effluent, surface water, groundwater, and pretreatment regulations(certificate #597)

Tennessee DEC for the chemical analysis of drinking water (lab #04017)

Wisconsin DNR for the chemical analysis of wastewater and solid waste (lab #998036710)



#### **COOLER INSPECTION**

COOLER INSPEC	TION			•	Date:	Monday	, September 27	7, 2010	
Client Name: LATA-K	emron Remediation LLC - Albuq	uerque, NM	Da	ite/Time Red	ceived:	09/18/2	010 10:20		
Work Order Number:	1010668		Re	eceived by:	Dan P	etreikis			
Checklist completed by:	9/18/2010 10:25:00AM Da	n Petreikis	Re	viewed by:	9/21/2	2010	DDG		
		Carrier Name: Fee	dEx						
	Cooler ID: Default Cooler		(	Container/Te	emp Blanl	c Tempera	ature: 4.00°	°C	
Custody seals intact of Custody seals intact of Custody seals intact of COC present? COC included sufficient COC included a samp COC agrees with same COC identified the app COC included date of COC included time of COC identified the app Samples in proper corticological sample containers into Sufficient sample volu All samples received were contained to the sample containers into Sufficient sample volu All samples received were contained to the sample containers into the samp	nt client identification? nt sample collector information? le description? ple labels? propriate matrix? collection? collection? propriate number of containers? ntainer/bottle? act? me for indicated test? within holding time? served, are the preservatives ide	ntified?	Ye Ye Ye Ye Ye Ye Ye Ye Ye Ye Ye Ye Ye Y		No No No No No No No No No No No No No N		Not Present Not Present Not Present		
	If No, adjusted by?								
Samples received on i Samples properly pres			Ye Ye Ye	s V	No No No No	No	VOA vials sub	omitted	<b>V</b>
— — — — — — - ANY "NO" EVALUAT	TON (excluding After-Hour Receip	— — — — — ot) REOUIRES CL	JENT NO	— — — TIFICATI	 ON.	- — —			
	Client Sample ID	Comments	11111111	JIIICAII	.011				
1	rs1								



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

GC Semivolatiles - Quality Control

Work Order: 1010668

Project: Bautsch - Gray Mine Site

Batch: B006277 Prep: SW846 3550

Polychlorinated Biphenyls	Pol	vchlo	rina	ted	Bip	henv	/ls
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Sample ID:	Blank (B006277-BLK1)		N	/lethod:	SW-846	8082		Prepped:	09/2	1/2010 (	06:07
Source:	:(=====: ===::)		-	<b></b>				Analyzed:		1/2010 1	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qua
Aroclor 1016		ND	33	μg/Kg wet							
Aroclor 1221		ND	33	μg/Kg wet							
Aroclor 1232		ND	33	μg/Kg wet							
Aroclor 1242		ND	33	μg/Kg wet							
Aroclor 1248		ND	33	μg/Kg wet							
Aroclor 1254		ND	33	μg/Kg wet							
Aroclor 1260		ND	33	μg/Kg wet							
Aroclor 1262		ND	33	μg/Kg wet							
Aroclor 1268		ND	33	μg/Kg wet							
Total PCB's		ND	33	μg/Kg wet							
Surrogate: Deca	chlorobiphenyl	7.3		μg/Kg wet	6.667		110	38-128			
Surrogate: Tetra	chloro-m-xylene	6.0		μg/Kg wet	6.667		90.0	40-130			
Sample ID:	LCS (B006277-BS1)		N	/lethod:	SW-846	8082		Prepped:	09/2	1/2010 (	06:07
Source:								Analyzed:	09/2	1/2010 1	10:55
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qua
Aroclor 1016		178	33	μg/Kg wet	166.7		107	30.2-145		30	
Aroclor 1260		177	33	μg/Kg wet	166.7		106	40.1-138		30	
Surrogate: Deca	chlorobiphenyl	7.3		μg/Kg wet	6.667		110	38-128			
Surrogate: Tetra	chloro-m-xylene	6.3		μg/Kg wet	6.667		95.0	40-130			
Sample ID:	Matrix Spike (B006277-N	/IS1)	N	/lethod:	SW-846	8082		Prepped:	09/2	1/2010 (	06:07
Source:	1010571-08							Analyzed:	09/2	1/2010 1	13:01
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qua
Aroclor 1016		542	180	μg/Kg dry	897.7	ND	60.4	27.2-130		40	
Aroclor 1260		451	180	μg/Kg dry	897.7	ND	50.3	23.8-131		40	
Surrogate: Deca	chlorobiphenyl	20		μg/Kg dry	35.91		55.0	38-128			
Surrogate: Tetra	chloro-m-xylene	14		μg/Kg dry	35.91		40.0	40-130			
Sample ID:	Matrix Spike Dup (B0062	277-MSD1)		/lethod:	SW-846	8082		Prepped:	09/2	1/2010 (	06:07
Source:	1010571-08	- ,						Analyzed:		1/2010	
Analyte		Result	Limit	Units	Level	Result	%REC		RPD	Limit	Qua
Aroclor 1016		548	180	μg/Kg dry	897.4	ND	61.1	27.2-130	1.09	40	
Aroclor 1260		497	180	μg/Kg dry	897.4	ND	55.4	23.8-131	9.58	40	
Surrogate: Deca	chlorobiphenyl	20		μg/Kg dry	35.90		55.0	38-128			
	chloro-m-xylene	14		,	35.90		40.0	40-130			s



Client: LATA-Kemron Remediation LLC - Albuquerque, NM GCMS Semivolatiles - Quality Control

Work Order: 1010668

Project: Bautsch - Gray Mine Site

**Batch:** B006388 **Prep:** SW846 3550A



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**GCMS Semivolatiles - Quality Control** 

Work Order: 1010668

Project: Bautsch - Gray Mine Site

**Batch:** B006388 **Prep:** SW846 3550A

#### **Semivolatile Organic Compounds**

Sample ID: Blank (B006388-BLK1) Source:		N	/lethod:	SW-846	8270C		Prepped: Analyzed:		3/2010 ( 3/2010 ·	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,2,4-Trichlorobenzene	ND	330	μg/Kg wet							
1,2-Dichlorobenzene	ND	330	μg/Kg wet							
1,2-Diphenyl-hydrazine	ND	330	μg/Kg wet							
1,3-Dichlorobenzene	ND	330	μg/Kg wet							
1,4-Dichlorobenzene	ND	330	μg/Kg wet							
2,2'-oxybis(1-chloropropane)	ND	330	μg/Kg wet							
2,4,5-Trichlorophenol	ND	330	μg/Kg wet							
2,4,6-Trichlorophenol	ND	330	μg/Kg wet							
2,4-Dichlorophenol	ND	330	μg/Kg wet							
2,4-Dimethylphenol	ND	330	μg/Kg wet							
2,4-Dinitrophenol	ND	1600	μg/Kg wet							
2,4-Dinitrotoluene	ND	330	μg/Kg wet							
2,6-Dichlorophenol	ND	330	μg/Kg wet							
2,6-Dinitrotoluene	ND	330	μg/Kg wet							
2-Chloronaphthalene	ND	330	μg/Kg wet							
2-Chlorophenol	ND	330	μg/Kg wet							
2-Methyl-4,6-dinitrophenol	ND	1600	μg/Kg wet							
2-Methylnaphthalene	ND	330	μg/Kg wet							
2-Methylphenol	ND	330	μg/Kg wet							
2-Nitroaniline	ND	1600	μg/Kg wet							
2-Nitrophenol	ND	330	μg/Kg wet							
3,3'-Dichlorobenzidine	ND	1600	μg/Kg wet							
3,4-Benzofluoranthene	ND	330	μg/Kg wet							
3/4-Methylphenol	ND	330	μg/Kg wet							
3-Nitroaniline	ND	330	μg/Kg wet							
4,6-Dinitro-2-methylphenol	ND	1600	μg/Kg wet							
4,6-Dinitro-o-cresol	ND	1600	μg/Kg wet							
4-Bromophenyl phenyl ether	ND	330	μg/Kg wet							
4-Chloro-3-methylphenol	ND	660	μg/Kg wet							
4-Chloroaniline	ND	330	μg/Kg wet							
4-Chlorophenyl phenyl ether	ND	330	μg/Kg wet							
4-Nitroaniline	ND	1600	μg/Kg wet							
4-Nitrophenol	ND	1600	μg/Kg wet							
Acenaphthene	ND	330	μg/Kg wet							
Acenaphthylene	ND	330	μg/Kg wet							
Acetophenone	ND	330	μg/Kg wet							
Aniline	ND	330	μg/Kg wet							
A 4h										
Anthracene	ND	330	μg/Kg wet							



Client: LATA-Kemron Remediation LLC - Albuquerque, NM GCMS Semivolatiles - Quality Control

Work Order: 1010668

Project: Bautsch - Gray Mine Site

**Batch:** B006388 **Prep:** SW846 3550A

Sample ID: Blank (B006388-BLK1) Source:		N	Method:	SW-846	8270C		Prepped: Analyzed:		2010 ( 2010 1	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Benzo[a]anthracene	ND	330	μg/Kg wet							
Benzo[a]pyrene	ND	330	μg/Kg wet							
Benzo[b]fluoranthene	ND	330	μg/Kg wet							
Benzo[g,h,i]perylene	ND	330	μg/Kg wet							
Benzo[k]fluoranthene	ND	330	μg/Kg wet							
Benzoic acid	ND	1600	μg/Kg wet							
Benzyl alcohol	ND	660	μg/Kg wet							
beta-Chloronaphthalene	ND	330	μg/Kg wet							
Bis(2-chloroethoxy)methane	ND	330	μg/Kg wet							
Bis(2-chloroethyl)ether	ND	330	μg/Kg wet							
Bis(2-ethylhexyl)phthalate	ND	330	μg/Kg wet							
Butyl benzyl phthalate	ND	330	μg/Kg wet							
Carbazole	ND	330	μg/Kg wet							
Chrysene	ND	330	μg/Kg wet							
Di(2-ethylhexyl) phthalate	ND	330	μg/Kg wet							
Dibenz[a,h]anthracene	ND	330	μg/Kg wet							
Dibenzofuran	ND	330	μg/Kg wet							
Diethyl phthalate	ND	330	μg/Kg wet							
Dimethyl phthalate	ND	330	μg/Kg wet							
Di-n-butyl phthalate	ND	330	μg/Kg wet							
Di-n-octyl phthalate	ND	330	μg/Kg wet							
Fluoranthene	ND	330	μg/Kg wet							
Fluorene	ND	330	μg/Kg wet							
Hexachlorobenzene	ND	330	μg/Kg wet							
Hexachlorobutadiene	ND	330	μg/Kg wet							
Hexachlorocyclopentadiene	ND	330	μg/Kg wet							
Hexachloroethane	ND	330	μg/Kg wet							
Indeno[1,2,3cd]pyrene	ND	330	μg/Kg wet							
Isophorone	ND	330	μg/Kg wet							
m-Dichlorobenzene	ND	330	μg/Kg wet							
Naphthalene	ND	330	μg/Kg wet							
Nitrobenzene	ND	330	μg/Kg wet							
N-Nitrosodimethylamine	ND	330	μg/Kg wet							
N-Nitrosodi-n-propylamine	ND	330	μg/Kg wet							
N-Nitrosodiphenylamine	ND	330	μg/Kg wet							
o-Chlorophenol	ND	330	μg/Kg wet							
p-Chloroaniline	ND	660	μg/Kg wet							
p-Chloro-m-cresol	ND	660	μg/Kg wet							
p-Cresol	ND	330	μg/Kg wet							
Pentachlorophenol	ND	1600	μg/Kg wet							
Phenanthrene	ND	330	μg/Kg wet							



Client: LATA-Kemron Remediation LLC - Albuquerque, NM **GCMS Semivolatiles - Quality Control** 

1010668 Work Order:

Bautsch - Gray Mine Site Project:

Sample ID: Blank (B006388-BLK1)		N	flethod:	SW-846	8270C		Prepped:	09/23	/2010	07:21
Source:							Analyzed:	09/23	/2010	10:25
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qua
Phenol	ND	330	μg/Kg wet							
Pyrene	ND	330	μg/Kg wet							
Pyridine	ND	330	μg/Kg wet							
Total Cresol	ND	330	μg/Kg wet							
Surrogate: 2,4,6-Tribromophenol	88		ug/mL	100.0		87.9	13.9-145			
Surrogate: 2-Fluorobiphenyl	40		ug/mL	50.00		80.5	28.1-110			
Surrogate: 2-Fluorophenol	82		ug/mL	100.0		81.8	24.5-110			
Surrogate: Nitrobenzene-d5	42		ug/mL	50.00		83.0	33.6-110			
Surrogate: Phenol-d5	84		ug/mL	100.0		83.6	29.6-110			
Surrogate: Terphenyl-d14	50		ug/mL	50.00		100	35.8-121			
Sample ID: Blank (B006388-BLK2)		N	lethod:	SW-846	8270C		Prepped:	09/23	/2010	07:21
Source:							Analyzed:	09/23	/2010	10:42
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Acenaphthene	ND	330	μg/Kg wet							
Acenaphthylene	ND	330	μg/Kg wet							
Anthracene	ND	330	μg/Kg wet							
Benzo[a]anthracene	ND	330	μg/Kg wet							
Benzo[a]pyrene	ND	330	μg/Kg wet							
Benzo[b]fluoranthene	ND	330	μg/Kg wet							
Benzo[g,h,i]perylene	ND	330	μg/Kg wet							
Benzo[k]fluoranthene	ND	330	μg/Kg wet							
Chrysene	ND	330	μg/Kg wet							
Dibenz[a,h]anthracene	ND	330	μg/Kg wet							
Fluoranthene	ND	330	μg/Kg wet							
Fluorene	ND	330	μg/Kg wet							
Indeno[1,2,3cd]pyrene	ND	330	μg/Kg wet							
Naphthalene	ND	330	μg/Kg wet							
Phenanthrene	ND	330	μg/Kg wet							
Pyrene	ND	330	μg/Kg wet							
Surrogate: 2,4,6-Tribromophenol	82		ug/mL	100.0		82.4	13.9-145			
Surrogate: 2-Fluorobiphenyl	41		ug/mL	50.00		81.1	28.1-110			
Surrogate: 2-Fluorophenol	79		ug/mL	100.0		79.1	24.5-110			
Surrogate: Nitrobenzene-d5	39		ug/mL	50.00		77.7	33.6-110			
Surrogate: Phenol-d5	82		ug/mL	100.0		81.6	29.6-110			
Surrogate: Terphenyl-d14	43		ug/mL	50.00		86.2	35.8-121			
Sample ID: LCS (B006388-BS1)		N	/lethod:	SW-846	8270C		Prepped:	09/23	/2010	 07:21
Source:							Analyzed:		/2010	
Analyte	Result	Limit	Units	Level	Result	%REC		RPD		Qual
1,2,4-Trichlorobenzene	2210	330	μg/Kg wet	3333		66.4	35.9-110		30	



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**GCMS Semivolatiles - Quality Control** 

Work Order: 1010668

Project: Bautsch - Gray Mine Site

**Batch:** B006388 **Prep:** SW846 3550A

Sample ID: LCS (B006388-BS1)		ľ	Method:	SW-846	8270C		Prepped:	09/23/2010 07:	
Source:		,					Analyzed:	09/23/2010 10:	
Analyte	Result	Limit	Units	Level	Result	%REC			Qual
2,2'-oxybis(1-chloropropane)	2160	330	μg/Kg wet	3333		64.7	10-113	30	
2,4-Dinitrotoluene	2110	330	μg/Kg wet	3333		63.2	42.6-110	30	
2-Chloronaphthalene	2300	330	μg/Kg wet	3333		69.0	19-111	30	
2-Chlorophenol	2230	330	μg/Kg wet	3333		67.0	36.1-110	30	
3,3´-Dichlorobenzidine	2720	1600	μg/Kg wet	3333		81.7	50-150	30	
4-Chloro-3-methylphenol	2420	660	μg/Kg wet	3333		72.5	40.6-119	30	
4-Chlorophenyl phenyl ether	2540	330	μg/Kg wet	3333		76.2	24-113	30	
4-Nitrophenol	2250	1600	μg/Kg wet	3333		67.5	39.1-110	30	
Acenaphthene	2230	330	μg/Kg wet	3333		66.8	42.1-110	30	
Benzo[g,h,i]perylene	2520	330	μg/Kg wet	3333		75.5	50-150	30	
Benzo[k]fluoranthene	2370	330	μg/Kg wet	3333		71.1	28-144	30	
Bis(2-ethylhexyl)phthalate	2430	330	μg/Kg wet	3333		73.0	22-128	30	
Dibenz[a,h]anthracene	2450	330	μg/Kg wet	3333		73.4	26-175	30	
Diethyl phthalate	2530	330	μg/Kg wet	3333		76.0	16-119	30	
Dimethyl phthalate	2370	330	μg/Kg wet	3333		71.0	15-130	30	
Indeno[1,2,3cd]pyrene	2700	330	μg/Kg wet	3333		81.1	50-150	30	
N-Nitrosodi-n-propylamine	2090	330	μg/Kg wet	3333		62.7	38.1-110	30	
Pentachlorophenol	1750	1600	μg/Kg wet	3333		52.6	22.1-110	30	
Phenol	1790	330	μg/Kg wet	3333		53.7	38.9-110	30	
Pyrene	2730	330	μg/Kg wet	3333		82.0	44.3-116	30	
Surrogate: 2,4,6-Tribromophenol	76		ug/mL	100.0		76.5	13.9-145		
Surrogate: 2-Fluorobiphenyl	39		ug/mL	50.00		77.7	28.1-110		
Surrogate: 2-Fluorophenol	74		ug/mL	100.0		74.3	24.5-110		
Surrogate: Nitrobenzene-d5	36		ug/mL	50.00		71.9	33.6-110		
Surrogate: Phenol-d5	68		ug/mL	100.0		68.1	29.6-110		
Surrogate: Terphenyl-d14	47		ug/mL	50.00		93.4	35.8-121		
Sample ID: Matrix Spike (B006388-	-MS1)	P	Method:	SW-846	8270C		Prepped:	09/23/2010 07:	21
<b>Source</b> : 1010753-01							Analyzed:	09/23/2010 14:	48
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD Limit C	Qual
1,2,4-Trichlorobenzene	2920	380	μg/Kg dry	3807	ND	76.6	33.9-110	30	
1,4-Dichlorobenzene	2750	380	μg/Kg dry	3807	ND	72.3	10-134	30	
2,2'-oxybis(1-chloropropane)	2620	380	μg/Kg dry	3807	ND	68.8	10-123	30	

Sample ID:	Matrix Spike (B0063	88-MS1)	N	/lethod:	SW-846	8270C		Prepped:	09/23	3/2010 (	)7:21
Source:	1010753-01							Analyzed:	09/23	3/2010 1	14:48
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,2,4-Trichlorobe	enzene	2920	380	μg/Kg dry	3807	ND	76.6	33.9-110		30	
1,4-Dichlorobenz	zene	2750	380	μg/Kg dry	3807	ND	72.3	10-134		30	
2,2'-oxybis(1-chl	oropropane)	2620	380	μg/Kg dry	3807	ND	68.8	10-123		30	
2,4-Dinitrotoluen	е	3160	380	μg/Kg dry	3807	ND	83.1	49.9-110		30	
2-Chloronaphtha	llene	2780	380	μg/Kg dry	3807	ND	72.9	10-121		30	
2-Chlorophenol		2880	380	μg/Kg dry	3807	ND	75.7	35.7-110		30	
3,3'-Dichloroben	zidine	3080	1800	μg/Kg dry	3807	ND	80.8	40-160		30	
4-Chloro-3-meth	ylphenol	3300	750	μg/Kg dry	3807	ND	86.6	41.5-121		30	
4-Chlorophenyl p	ohenyl ether	3130	380	μg/Kg dry	3807	ND	82.2	14-123		30	
4-Nitrophenol		2760	1800	μg/Kg dry	3807	ND	72.5	32.1-121		30	
Acenaphthene		3000	380	μg/Kg dry	3807	ND	78.8	39.8-110		30	



SW-846 8270C

Result

Level

### **Analytical QC Summary**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Result

querque, NM GCMS Semivolatiles - Quality Control

%REC

Prepped:

Analyzed:

Limits

09/23/2010 07:21

09/23/2010 14:48

Limit Qual

**RPD** 

Work Order: 1010668

N-Nitrosodi-n-propylamine

Pentachlorophenol

Sample ID:

Source:

Analyte

Project: Bautsch - Gray Mine Site

1010753-01

**Batch:** B006388 **Prep:** SW846 3550A

Matrix Spike (B006388-MS1)

Benzo[g,h,i]perylene         2400           Benzo[k]fluoranthene         2110           Bis(2-ethylhexyl)phthalate         3540           Dibenz[a,h]anthracene         2540           Diethyl phthalate         3160           Dimethyl phthalate         2940           Indeno[1,2,3cd]pyrene         2620           N-Nitrosodi-n-propylamine         3110           Pentachlorophenol         2490           Phenol         2680           Pyrene         2950           Surrogate: 2,4,6-Tribromophenol         96           Surrogate: 2-Fluorophenol         86           Surrogate: Nitrobenzene-d5         40           Surrogate: Phenol-d5         82           Surrogate: Terphenyl-d14         48           Sample ID:         Matrix Spike Dup (B006388-MSD1)           Source:         1010753-01           Analyte         Result	380 380 380 380 380 380 380 380 380	µg/Kg dry µg/Kg dry µg/Kg dry µg/Kg dry µg/Kg dry µg/Kg dry µg/Kg dry µg/Kg dry µg/Kg dry µg/Kg dry ug/mL ug/mL ug/mL ug/mL ug/mL	3807 3807 3807 3807 3807 3807 3807 3807	ND ND ND ND ND ND ND ND ND ND ND ND ND N	63.1 55.5 92.9 66.7 83.0 77.4 68.9 81.6 65.5 70.4 77.6 96.0 86.5 85.7 79.9	40-160 18-154 12-138 16-185 10-129 10-140 40-160 37.4-110 10.6-110 43.3-110 37.6-113 13.9-145 28.1-110 24.5-110		30 30 30 30 30 30 30 30 30 30	
Bis(2-ethylhexyl)phthalate       3540         Dibenz[a,h]anthracene       2540         Diethyl phthalate       3160         Dimethyl phthalate       2940         Indeno[1,2,3cd]pyrene       2620         N-Nitrosodi-n-propylamine       3110         Pentachlorophenol       2490         Phenol       2680         Pyrene       2950         Surrogate: 2,4,6-Tribromophenol       96         Surrogate: 2-Fluorobiphenyl       43         Surrogate: 2-Fluorophenol       86         Surrogate: Nitrobenzene-d5       40         Surrogate: Phenol-d5       82         Surrogate: Terphenyl-d14       48     Sample ID: Matrix Spike Dup (B006388-MSD1)  Source: 1010753-01	380 380 380 380 380 380 380 380	μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry ug/mL ug/mL ug/mL ug/mL	3807 3807 3807 3807 3807 3807 3807 3807	ND ND ND ND ND ND ND ND ND ND	92.9 66.7 83.0 77.4 68.9 81.6 65.5 70.4 77.6 96.0 86.5 85.7	12-138 16-185 10-129 10-140 40-160 37.4-110 10.6-110 43.3-110 37.6-113 13.9-145 28.1-110 24.5-110		30 30 30 30 30 30 30 30	
Dibenz[a,h]anthracene         2540           Diethyl phthalate         3160           Dimethyl phthalate         2940           Indeno[1,2,3cd]pyrene         2620           N-Nitrosodi-n-propylamine         3110           Pentachlorophenol         2490           Phenol         2680           Pyrene         2950           Surrogate: 2,4,6-Tribromophenol         96           Surrogate: 2-Fluorobiphenyl         43           Surrogate: Nitrobenzene-d5         40           Surrogate: Phenol-d5         82           Surrogate: Terphenyl-d14         48           Sample ID:         Matrix Spike Dup (B006388-MSD1)           Source:         1010753-01	380 380 380 380 380 380 380	μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/mL ug/mL ug/mL ug/mL ug/mL	3807 3807 3807 3807 3807 3807 3807 100.0 50.00 100.0 50.00 100.0	ND ND ND ND ND ND ND ND	66.7 83.0 77.4 68.9 81.6 65.5 70.4 77.6 96.0 86.5 85.7	16-185 10-129 10-140 40-160 37.4-110 10.6-110 43.3-110 37.6-113 13.9-145 28.1-110 24.5-110		30 30 30 30 30 30 30	
Diethyl phthalate         3160           Dimethyl phthalate         2940           Indeno[1,2,3cd]pyrene         2620           N-Nitrosodi-n-propylamine         3110           Pentachlorophenol         2490           Phenol         2680           Pyrene         2950           Surrogate: 2,4,6-Tribromophenol         96           Surrogate: 2-Fluorobiphenyl         43           Surrogate: 2-Fluorophenol         86           Surrogate: Nitrobenzene-d5         40           Surrogate: Phenol-d5         82           Surrogate: Terphenyl-d14         48           Sample ID:         Matrix Spike Dup (B006388-MSD1)           Source:         1010753-01	380 380 380 380 1800 380	μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry ug/mL ug/mL ug/mL ug/mL ug/mL	3807 3807 3807 3807 3807 3807 100.0 50.00 100.0 50.00 100.0	ND ND ND ND ND	83.0 77.4 68.9 81.6 65.5 70.4 77.6 96.0 86.5 85.7	10-129 10-140 40-160 37.4-110 10.6-110 43.3-110 37.6-113 13.9-145 28.1-110 24.5-110		30 30 30 30 30 30	
Dimethyl phthalate         2940           Indeno[1,2,3cd]pyrene         2620           N-Nitrosodi-n-propylamine         3110           Pentachlorophenol         2490           Phenol         2680           Pyrene         2950           Surrogate: 2,4,6-Tribromophenol         96           Surrogate: 2-Fluorobiphenyl         43           Surrogate: 2-Fluorophenol         86           Surrogate: Nitrobenzene-d5         40           Surrogate: Phenol-d5         82           Surrogate: Terphenyl-d14         48           Sample ID:         Matrix Spike Dup (B006388-MSD1)           Source:         1010753-01	380 380 380 1800 380 380	μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Mg dry ug/mL ug/mL ug/mL ug/mL	3807 3807 3807 3807 3807 3807 100.0 50.00 100.0 50.00	ND ND ND ND	77.4 68.9 81.6 65.5 70.4 77.6 96.0 86.5 85.7	10-140 40-160 37.4-110 10.6-110 43.3-110 37.6-113 13.9-145 28.1-110 24.5-110		30 30 30 30 30	
Indeno[1,2,3cd]pyrene         2620           N-Nitrosodi-n-propylamine         3110           Pentachlorophenol         2490           Phenol         2680           Pyrene         2950           Surrogate: 2,4,6-Tribromophenol         96           Surrogate: 2-Fluorophenol         86           Surrogate: Nitrobenzene-d5         40           Surrogate: Phenol-d5         82           Surrogate: Terphenyl-d14         48           Sample ID:         Matrix Spike Dup (B006388-MSD1)           Source:         1010753-01	380 380 1800 380 380	μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry ug/mL ug/mL ug/mL ug/mL	3807 3807 3807 3807 3807 100.0 50.00 100.0	ND ND ND ND	68.9 81.6 65.5 70.4 77.6 96.0 86.5 85.7	40-160 37.4-110 10.6-110 43.3-110 37.6-113 13.9-145 28.1-110 24.5-110		30 30 30 30	
N-Nitrosodi-n-propylamine         3110           Pentachlorophenol         2490           Phenol         2680           Pyrene         2950           Surrogate: 2,4,6-Tribromophenol         96           Surrogate: 2-Fluorobiphenyl         43           Surrogate: 2-Fluorophenol         86           Surrogate: Nitrobenzene-d5         40           Surrogate: Phenol-d5         82           Surrogate: Terphenyl-d14         48           Sample ID:         Matrix Spike Dup (B006388-MSD1)           Source:         1010753-01	380 1800 380 380	μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry ug/mL ug/mL ug/mL ug/mL	3807 3807 3807 3807 100.0 50.00 100.0 50.00	ND ND ND	81.6 65.5 70.4 77.6 96.0 86.5 85.7	37.4-110 10.6-110 43.3-110 37.6-113 13.9-145 28.1-110 24.5-110		30 30 30	
Pentachlorophenol         2490           Phenol         2680           Pyrene         2950           Surrogate: 2,4,6-Tribromophenol         96           Surrogate: 2-Fluorobiphenyl         43           Surrogate: Pluorophenol         86           Surrogate: Nitrobenzene-d5         40           Surrogate: Phenol-d5         82           Surrogate: Terphenyl-d14         48           Sample ID:         Matrix Spike Dup (B006388-MSD1)           Source:         1010753-01	1800 380 380	μg/Kg dry μg/Kg dry μg/Kg dry ug/mL ug/mL ug/mL ug/mL	3807 3807 3807 100.0 50.00 100.0 50.00 100.0	ND ND	65.5 70.4 77.6 96.0 86.5 85.7	10.6-110 43.3-110 37.6-113 13.9-145 28.1-110 24.5-110		30 30	
Phenol         2680           Pyrene         2950           Surrogate: 2,4,6-Tribromophenol         96           Surrogate: 2-Fluorobiphenyl         43           Surrogate: 2-Fluorophenol         86           Surrogate: Nitrobenzene-d5         40           Surrogate: Phenol-d5         82           Surrogate: Terphenyl-d14         48           Sample ID:         Matrix Spike Dup (B006388-MSD1)           Source:         1010753-01	380 380	μg/Kg dry μg/Kg dry ug/mL ug/mL ug/mL ug/mL ug/mL	3807 3807 100.0 50.00 100.0 50.00 100.0	ND	70.4 77.6 96.0 86.5 85.7	43.3-110 37.6-113 13.9-145 28.1-110 24.5-110		30	
Pyrene         2950           Surrogate: 2,4,6-Tribromophenol         96           Surrogate: 2-Fluorobiphenyl         43           Surrogate: 2-Fluorophenol         86           Surrogate: Nitrobenzene-d5         40           Surrogate: Phenol-d5         82           Surrogate: Terphenyl-d14         48           Sample ID: Matrix Spike Dup (B006388-MSD1)           Source: 1010753-01	380	μg/Kg dry ug/mL ug/mL ug/mL ug/mL ug/mL	3807 100.0 50.00 100.0 50.00 100.0		77.6 96.0 86.5 85.7	37.6-113 13.9-145 28.1-110 24.5-110			
Surrogate: 2,4,6-Tribromophenol         96           Surrogate: 2-Fluorobiphenyl         43           Surrogate: 2-Fluorophenol         86           Surrogate: Nitrobenzene-d5         40           Surrogate: Phenol-d5         82           Surrogate: Terphenyl-d14         48           Sample ID: Matrix Spike Dup (B006388-MSD1)           Source: 1010753-01		ug/mL ug/mL ug/mL ug/mL ug/mL	100.0 50.00 100.0 50.00 100.0	ND	96.0 86.5 85.7	13.9-145 28.1-110 24.5-110		30	
Surrogate: 2-Fluorobiphenyl         43           Surrogate: 2-Fluorophenol         86           Surrogate: Nitrobenzene-d5         40           Surrogate: Phenol-d5         82           Surrogate: Terphenyl-d14         48           Sample ID: Matrix Spike Dup (B006388-MSD1)           Source: 1010753-01		ug/mL ug/mL ug/mL ug/mL	50.00 100.0 50.00 100.0		86.5 85.7	28.1-110 24.5-110			
Surrogate: 2-Fluorophenol         86           Surrogate: Nitrobenzene-d5         40           Surrogate: Phenol-d5         82           Surrogate: Terphenyl-d14         48           Sample ID: Matrix Spike Dup (B006388-MSD1)           Source: 1010753-01		ug/mL ug/mL ug/mL	100.0 50.00 100.0		85.7	24.5-110			
Surrogate: Nitrobenzene-d5         40           Surrogate: Phenol-d5         82           Surrogate: Terphenyl-d14         48           Sample ID: Matrix Spike Dup (B006388-MSD1)           Source: 1010753-01		ug/mL ug/mL	50.00 100.0						
Surrogate: Phenol-d5         82           Surrogate: Terphenyl-d14         48           Sample ID: Matrix Spike Dup (B006388-MSD1)           Source: 1010753-01		ug/mL	100.0		79.9				
Surrogate: Terphenyl-d14         48           Sample ID:         Matrix Spike Dup (B006388-MSD1)           Source:         10I0753-01		•				33.6-110			
Sample ID: Matrix Spike Dup (B006388-MSD1) Source: 10I0753-01		ug/mL			82.1	29.6-110			
<b>Source:</b> 1010753-01			50.00		96.0	35.8-121			
	Limit	Units	Level	Result	%REC	Analyzed: Limits	RPD	3/2010 1 Limit	Qua
1,2,4-Trichlorobenzene 2560	380	μg/Kg dry	3807	ND	67.2	33.9-110	13.0	30	Qua
1,4-Dichlorobenzene 2150	380	μg/Kg dry	3807	ND	56.4	10-134	24.7	30	
2,2'-oxybis(1-chloropropane) 2350	380	μg/Kg dry	3807	ND	61.7	10-123	10.8	30	
2,4-Dinitrotoluene 2770	380	μg/Kg dry	3807	ND	72.8	49.9-110	13.2	30	
2-Chloronaphthalene 2650	380	μg/Kg dry	3807	ND	69.7	10-121	4.53	30	
2-Chlorophenol 2600	380	μg/Kg dry	3807	ND	68.3	35.7-110	10.2	30	
3,3'-Dichlorobenzidine 3000	1800	μg/Kg dry	3807	ND	78.8	40-160	2.52	30	
4-Chloro-3-methylphenol 2940	750	μg/Kg dry	3807	ND	77.3	41.5-121	11.5	30	
4-Chlorophenyl phenyl ether 3110	380	μg/Kg dry	3807	ND	81.6	14-123	0.781	30	
4-Nitrophenol 2990	1800	μg/Kg dry	3807	ND	78.7	32.1-121	8.11	30	
Acenaphthene 2670	380	μg/Kg dry	3807	ND	70.2	39.8-110	11.6	30	
Benzo[g,h,i]perylene 2320	380	μg/Kg dry	3807	ND	60.9	40-160	3.50	30	
Benzo[g,n,n]penyiene 2020		μg/Kg dry	3807	ND	55.9	18-154	0.808	30	
	380				05.0	40 400	0.40		
10. 11. 1		μg/Kg dry	3807	ND	85.6	12-138	8.13	30	
Benzo[k]fluoranthene 2130	380	μg/Kg dry μg/Kg dry	3807 3807	ND ND	85.6 65.3	12-138 16-185	8.13 2.17	30 30	
Benzo[k]fluoranthene 2130 Bis(2-ethylhexyl)phthalate 3260	380 380								
Benzo[k]fluoranthene         2130           Bis(2-ethylhexyl)phthalate         3260           Dibenz[a,h]anthracene         2490	380 380 380	μg/Kg dry	3807	ND	65.3	16-185	2.17	30	

Method:

Units

Limit

3807

3807

ND

ND

62.7

66.2

37.4-110

10.6-110

26.2

1.03

30

30

μg/Kg dry

μg/Kg dry

380

1800

2390

2520



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**GCMS Semivolatiles - Quality Control** 

Work Order: 1010668

Project: Bautsch - Gray Mine Site

**Batch:** B006388 **Prep:** SW846 3550A

Sample ID: Source:	Matrix Spike Dup (E 1010753-01	3006388-MSD1)	N	flethod:	SW-846	8270C		Prepped: Analyzed:		3/2010 ( 3/2010 1	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Phenol		2160	380	μg/Kg dry	3807	ND	56.6	43.3-110	21.7	30	
Pyrene		3030	380	μg/Kg dry	3807	ND	79.6	37.6-113	2.61	30	
Surrogate: 2,4,6-	-Tribromophenol	90		ug/mL	100.0		90.0	13.9-145			
Surrogate: 2-Flue	orobiphenyl	39		ug/mL	50.00		77.7	28.1-110			
Surrogate: 2-Flu	orophenol	70		ug/mL	100.0		69.8	24.5-110			
Surrogate: Nitrol	benzene-d5	36		ug/mL	50.00		72.9	33.6-110			
Surrogate: Phen	ol-d5	69		ug/mL	100.0		69.3	29.6-110			
Surrogate: Terph	henyl-d14	45		ug/mL	50.00		89.4	35.8-121			



Client: LATA-Kemron Remediation LLC - Albuquerque, NM GCMS Volatiles - Quality Control

Work Order: 1010668

Project: Bautsch - Gray Mine Site



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**GCMS Volatiles - Quality Control** 

**Work Order:** 1010668

Project: Bautsch - Gray Mine Site

**Batch:** B006439

#### Volatile Organic Compounds, 5035 prep, SB preserve

Analyte         Result         Limit         Units         Level         Result         %REC         Limits         RPD         Limit           1,1,1,2-Tetrachloroethane         ND         10         μg/Kg wet         1.1,1-Trichloroethane         ND         5.0         μg/Kg wet         1.1,2-Trichloroethane         ND         5.0         μg/Kg wet         1.1,2-Trichloroethane         ND         5.0         μg/Kg wet         1.1-Dichloroethane         1.1-Dichloroethane         1.1-Dichloroethane         1.1-Dichloroethane         1.1-Dichloroethane         1.1-Dichloro	t Qual
1,1,1-Trichloroethane       ND       5.0       μg/Kg wet         1,1,2,2-Tetrachloroethane       ND       5.0       μg/Kg wet         1,1,2-Trichloroethane       ND       5.0       μg/Kg wet         1,1-Dichloroethane       ND       5.0       μg/Kg wet         1,1-Dichloroethane       ND       5.0       μg/Kg wet         1,2-Dichloroethane       ND       5.0       μg/Kg wet	
1,1,2,2-Tetrachloroethane ND 5.0 $\mu$ g/Kg wet 1,1,2-Trichloroethane ND 5.0 $\mu$ g/Kg wet 1,1-Dichloroethane ND 5.0 $\mu$ g/Kg wet 1,1-Dichloroethane ND 5.0 $\mu$ g/Kg wet 1,1-Dichloroethane ND 5.0 $\mu$ g/Kg wet 1,2-Dichloroethane ND 5.0 $\mu$ g/Kg wet 1,2-Dichloroethane ND 5.0 $\mu$ g/Kg wet	
1,1,2-Trichloroethane ND 5.0 $\mu$ g/Kg wet 1,1-Dichloroethane ND 5.0 $\mu$ g/Kg wet 1,1-Dichloroethane ND 5.0 $\mu$ g/Kg wet 1,2-Dichloroethane ND 5.0 $\mu$ g/Kg wet 1,2-Dichloroethane ND 5.0 $\mu$ g/Kg wet	
1,1-Dichloroethane ND 5.0 $\mu$ g/Kg wet 1,1-Dichloroethene ND 5.0 $\mu$ g/Kg wet 1,2-Dichloroethane ND 5.0 $\mu$ g/Kg wet 1,2-Dichloroethane	
1,1-Dichloroethene ND 5.0 $\mu$ g/Kg wet 1,2-Dichloroethane ND 5.0 $\mu$ g/Kg wet	
1,2-Dichloroethane ND 5.0 µg/Kg wet	
1,2-Dichloropropane ND 5.0 $\mu$ g/Kg wet	
2-Butanone ND 10 $\mu g/Kg$ wet	
2-Hexanone ND 5.0 $\mu g/Kg$ wet	
4-Methyl-2-Pentanone ND 5.0 $\mu$ g/Kg wet	
Acetone ND 50 μg/Kg wet	
Acrolein ND 100 μg/Kg wet	
Acrylonitrile ND 100 μg/Kg wet	
Benzene ND 5.0 µg/Kg wet	
Bromodichloromethane ND 5.0 µg/Kg wet	
Bromoform ND 5.0 µg/Kg wet	
Bromomethane ND 10 µg/Kg wet	
Carbon Disulfide ND 10 µg/Kg wet	
Carbon tetrachloride ND 5.0 µg/Kg wet	
Chlorobenzene ND 5.0 µg/Kg wet	
Chloroethane ND 10 µg/Kg wet	
Chloroform ND 5.0 μg/Kg wet	
Chloromethane ND 10 µg/Kg wet	
cis-1,2-Dichloroethene ND 5.0 µg/Kg wet	
cis-1,3-Dichloropropene ND 5.0 µg/Kg wet	
Dibromochloromethane ND 5.0 μg/Kg wet	
Ethylbenzene ND 5.0 μg/Kg wet	
m,p-Xylene ND 5.0 $\mu$ g/Kg wet	
Methylene chloride ND 20 μg/Kg wet	
Methyl-t-Butyl Ether ND 5.0 μg/Kg wet	
o-Xylene ND 5.0 µg/Kg wet	
Styrene ND 5.0 µg/Kg wet	
Tetrachloroethene ND 5.0 μg/Kg wet	
Toluene ND 5.0 μg/Kg wet	
trans-1,2-Dichloroethene ND 5.0 µg/Kg wet	
trans-1,3-Dichloropropene ND 5.0 µg/Kg wet	
Trichloroethene ND 5.0 μg/Kg wet	
Trichlorofluoromethane ND 10 μg/Kg wet	



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**GCMS Volatiles - Quality Control** 

Method:

SW-846 8260B

Work Order: 1010668

Sample ID:

Bautsch - Gray Mine Site Project:

Blank (B006439-BLK1)

B006439 Batch:

Sample ID. Blank (B000439-BLK1)		IN.	netrioa.	377-040	02000		rieppeu.			10.40
Source:	DIt	1 ::4	11-34-	11	D 14		Analyzed:		4/2010 1	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Vinyl Acetate	ND	10	μg/Kg wet							
Vinyl chloride	ND	10	μg/Kg wet							
Total 1,2-Dichloroethene	ND	10	μg/Kg wet							
Total Xylenes	ND	5.0	μg/Kg wet							
Surrogate: 1,2-Dichloroethane-d4	52		μg/L	50.00		105	51.7-162			
Surrogate: 4-Bromofluorobenzene	49		μg/L	50.00		98.9	57.4-135			
Surrogate: Dibromofluoromethane	50		μg/L	50.00		101	63.5-139			
Surrogate: Toluene-d8	52		μg/L	50.00		104	66.6-143			
Sample ID: LCS (B006439-BS1) Source:		N	Method:	SW-846	8260B		Prepped: Analyzed:		4/2010( 4/2010 <i>(</i>	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,1,1,2-Tetrachloroethane	52.8		μg/L	50.00		106	73.2-127		30	
1,1,1-Trichloroethane	52.6		μg/L	50.00		105	68.4-134		30	
1,1,2,2-Tetrachloroethane	48.5		μg/L	50.00		97.0	67.8-115		30	
1,1,2-Trichloroethane	50.7		μg/L	50.00		101	74-114		30	
1,1-Dichloroethane	53.4		μg/L	50.00		107	70.3-121		30	
1,1-Dichloroethene	44.5		μg/L	50.00		89.1	54-119		30	
1,2-Dichloroethane	51.9		μg/L	50.00		104	65.5-129		30	
1,2-Dichloropropane	52.8		μg/L	50.00		106	68.6-124		30	
2-Butanone	46.4		μg/L	50.00		92.9	55.8-114		30	
2-Hexanone	44.6		μg/L	50.00		89.3	49.9-110			
4-Methyl-2-Pentanone	48.1		μg/L	50.00		96.2	57-114		30	
Acetone	50.6		μg/L	50.00		101	37.2-135		30	
Acrylonitrile	54.5		μg/L	50.00		109	45.3-148		30	
Benzene	51.4		μg/L	50.00		103	71.8-123		30	
Bromodichloromethane	52.7		μg/L	50.00		105	69.4-132		30	
Bromoform	40.5		μg/L	50.00		80.9	54.7-123		30	
Bromomethane	27.7		μg/L	50.00		55.4	10-143		30	
Carbon Disulfide	59.8		μg/L	50.00		120	80-159		30	
Carbon tetrachloride	53.6		μg/L	50.00		107	68.6-138		30	
Chlorobenzene	53.4		μg/L	50.00		107	80.1-122		30	
Chloroethane	59.6		μg/L	50.00		119	53.6-121		30	
Chloroform	53.0		μg/L	50.00		106	71.9-127		30	
Chloromethane	42.6		μg/L	50.00		85.3	28.3-124		30	
cis-1,2-Dichloroethene	53.8		μg/L	50.00		108	81.5-132		30	
cis-1,3-Dichloropropene	53.8		μg/L	50.00		108	74.9-117		30	
Dibromochloromethane	45.6		μg/L	50.00		91.2	65.1-132		30	
Ethylbenzene	55.0		μg/L	50.00		110	77.1-124		30	
m,p-Xylene									30	
111,p-Aylette	109		μg/L	100.0		109	77.4-126		30	

09/24/2010 08:31

Prepped:



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

GCMS Volatiles - Quality Control

Work Order: 1010668

Project: Bautsch - Gray Mine Site

Sample ID: Source:	LCS (B006439-BS1)		N	lethod:	SW-846	8260B		Prepped: Analyzed:	09/24/2 09/24/2		08:31 10:42
Analyte		Result	Limit	Units	Level	Result	%REC		RPD	Limit	Qual
Methyl-t-Butyl E	ther	51.1		μg/L	50.00		102	77.8-120		30	
o-Xylene		53.0		μg/L	50.00		106	74.9-124		30	
Styrene		54.7		μg/L	50.00		109	77.7-117		30	
Tetrachloroethei	ne	57.2		μg/L	50.00		114	81.9-127		30	
Toluene		53.8		μg/L	50.00		108	76.7-122		30	
trans-1,2-Dichlo	roethene	51.1		μg/L	50.00		102	67.6-126		30	
trans-1,3-Dichlo	ropropene	58.4		μg/L	50.00		117	77.6-129		30	
Trichloroethene		53.3		μg/L	50.00		107	73.1-131		30	
Trichlorofluorom	nethane	54.8		μg/L	50.00		110	61.3-140		30	
Vinyl Acetate		69.9		μg/L	50.00		140	52.4-154		30	
Vinyl chloride		41.1		μg/L	50.00		82.3	48.5-124		30	
Surrogate: 1,2-E	Dichloroethane-d4	49		μg/L	50.00		97.4	51.7-162			
Surrogate: 4-Bro	omofluorobenzene	51		μg/L	50.00		102	57.4-135			
Surrogate: Dibro	omofluoromethane	48		μg/L	50.00		97.0	63.5-139			
Surrogate: Tolue	ene-d8	52		μg/L	50.00		104	66.6-143			
Sample ID:	Matrix Spike (B006439	-MS1)	N	lethod:	SW-846	8260B		Prepped:	09/24/2	2010 (	08:31
Source:	1010834-01							Analyzed:	09/24/2	2010	15:40
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,1,1,2-Tetrachle	oroethane	57.4		μg/L	50.00	ND	115	52.5-130		30	
4 4 4 Table 1		50.7			F0 00	ND	407	40.0.405		00	

Sample ID: Source:	Matrix Spike (B006439-I 10I0834-01	MS1)	M	lethod:	SW-846	8260B		Prepped: Analyzed:		/2010 ( /2010 1	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,1,1,2-Tetrachlor	roethane	57.4		μg/L	50.00	ND	115	52.5-130		30	
1,1,1-Trichloroeth	ane	53.7		μg/L	50.00	ND	107	46.3-135		30	
1,1,2,2-Tetrachlor	roethane	65.7		μg/L	50.00	ND	131	56-146		30	
1,1,2-Trichloroeth	ane	56.5		μg/L	50.00	ND	113	60.2-129		30	
1,1-Dichloroethan	ie	66.5		μg/L	50.00	ND	133	59-131		30	S
1,1-Dichloroethen	ie	54.3		μg/L	50.00	ND	109	39.1-116		30	
1,2-Dichloroethan	ne	56.0		μg/L	50.00	ND	112	54.7-126		30	
1,2-Dichloropropa	ane	58.6		μg/L	50.00	ND	117	62.9-118		30	
2-Butanone		49.7		μg/L	50.00	ND	99.5	38.1-138		30	
2-Hexanone		45.2		μg/L	50.00	ND	90.3	34-149		30	
4-Methyl-2-Penta	none	60.2		μg/L	50.00	ND	120	31.1-175		30	
Acetone		103		μg/L	50.00	34.0	139	27.9-161		30	
Acrylonitrile		56.8		μg/L	50.00	ND	114	39.4-186		30	
Benzene		60.4		μg/L	50.00	3.50	114	54.8-120		30	
Bromodichlorome	thane	54.8		μg/L	50.00	ND	110	54.6-122		30	
Bromoform		37.2		μg/L	50.00	ND	74.3	31-122		30	
Bromomethane		-50.0		μg/L	50.00	ND		10.8-142		30	
Carbon Disulfide		67.5		μg/L	50.00	1.68	132	16-177		30	
Carbon tetrachlor	ide	58.8		μg/L	50.00	ND	118	41.6-132		30	
Chlorobenzene		53.9		μg/L	50.00	ND	108	36.8-129		30	
Chloroethane		71.3		μg/L	50.00	ND	143	42.4-126		30	S
Chloroform		60.4		μg/L	50.00	ND	121	64-123		30	



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

GCMS Volatiles - Quality Control

Work Order: 1010668

Project: Bautsch - Gray Mine Site

Sample ID:	Matrix Spike (B0064	139-MS1)	N	lethod:	SW-846 8260B			Prepped:		/2010 0	
Source:	1010834-01		,			- II		Analyzed:		/2010 1	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Chloromethane		51.9		μg/L	50.00	ND	104	45.3-143		30	
cis-1,2-Dichloroe	thene	59.8		μg/L	50.00	ND	120	67-126		30	
cis-1,3-Dichlorop	ropene	62.4		μg/L	50.00	ND	125	49.9-139		30	
Dibromochlorom	ethane	47.4		μg/L	50.00	ND	94.8	52.1-132		30	
Ethylbenzene		62.4		μg/L	50.00	2.79	119	33.4-133		30	
m,p-Xylene		117		μg/L	100.0	2.96	114	30.5-132		30	
Methylene chlorid	de	57.4		μg/L	50.00	1.99	111	53.8-125		30	
Methyl-t-Butyl Et	her	55.0		μg/L	50.00	ND	110	41.1-144		30	
o-Xylene		57.4		μg/L	50.00	1.15	112	38-123		30	
Styrene		47.4		μg/L	50.00	ND	94.9	16.9-131		30	
Tetrachloroethen	е	60.4		μg/L	50.00	ND	121	43-135		30	
Toluene		69.7		μg/L	50.00	8.11	123	35.2-143		30	
trans-1,2-Dichlor	oethene	59.9		μg/L	50.00	ND	120	53.7-120		30	
trans-1,3-Dichlor	opropene	65.0		μg/L	50.00	ND	130	42-148		30	
Trichloroethene		58.1		μg/L	50.00	ND	116	37.1-145		30	
Trichlorofluorome	ethane	67.4		μg/L	50.00	ND	135	40.5-141		30	
Vinyl Acetate		73.8		μg/L	50.00	ND	148	22.5-184		30	
Vinyl chloride		52.7		μg/L	50.00	ND	105	54.5-143		30	
Surrogate: 1,2-D	ichloroethane-d4	49		μg/L	50.00		98.4	51.7-162			
Surrogate: 4-Bro	mofluorobenzene	46		μg/L	50.00		91.7	57.4-135			
Surrogate: Dibro	mofluoromethane	49		μg/L	50.00		97.2	63.5-139			
Surrogate: Tolue	ne-d8	57		μg/L	50.00		114	66.6-143			

Sample ID: Source:	Matrix Spike (B006439 1010692-02	-MS2)	M	lethod:	SW-846	8260B		Prepped:	09/24/20 09/24/20		
Analyte	1010092-02	Result	Limit	Units	Level	Result	%REC	Analyzed: Limits		_imit	Qual
1,1,1,2-Tetrachlo	roethane	55.8	Limit	μg/L	50.00	ND	112	52.5-130	TAID I	30	Quai
1,1,1-Trichloroeth	nane	57.3		μg/L	50.00	ND	115	46.3-135		30	
1,1,2,2-Tetrachlo	roethane	67.8		μg/L	50.00	ND	136	56-146		30	
1,1,2-Trichloroeth	nane	55.3		μg/L	50.00	ND	111	60.2-129		30	
1,1-Dichloroetha	ne	61.1		μg/L	50.00	ND	122	59-131		30	
1,1-Dichloroether	ne	51.8		μg/L	50.00	ND	104	39.1-116		30	
1,2-Dichloroethai	ne	51.0		μg/L	50.00	ND	102	54.7-126		30	
1,2-Dichloropropa	ane	55.6		μg/L	50.00	ND	111	62.9-118		30	
2-Butanone		49.3		μg/L	50.00	5.82	87.0	38.1-138		30	
2-Hexanone		53.3		μg/L	50.00	ND	107	34-149		30	
4-Methyl-2-Penta	inone	57.9		μg/L	50.00	ND	116	31.1-175		30	
Acetone		81.1		μg/L	50.00	66.9	28.4	27.9-161		30	
Acrylonitrile		52.9		μg/L	50.00	ND	106	39.4-186		30	
Benzene		56.2		μg/L	50.00	3.26	106	54.8-120		30	
Bromodichlorome	ethane	52.3		μg/L	50.00	ND	105	54.6-122		30	



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

GCMS Volatiles - Quality Control

Work Order: 1010668

Project: Bautsch - Gray Mine Site

Sample ID: Source:	Matrix Spike (B006439- 10I0692-02	MS2)	M	ethod:	SW-846	8260B		Prepped: Analyzed:		1/2010 0 1/2010 1	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Bromoform		37.2		μg/L	50.00	ND	74.5	31-122		30	
Bromomethane		45.3		μg/L	50.00	ND	90.6	10.8-142		30	
Carbon Disulfide		65.5		μg/L	50.00	2.59	126	16-177		30	
Carbon tetrachlor	ride	56.0		μg/L	50.00	ND	112	41.6-132		30	
Chlorobenzene		52.0		μg/L	50.00	ND	104	36.8-129		30	
Chloroethane		78.6		μg/L	50.00	ND	157	42.4-126		30	S
Chloroform		56.0		μg/L	50.00	ND	112	64-123		30	
Chloromethane		49.6		μg/L	50.00	ND	99.2	45.3-143		30	
cis-1,2-Dichloroe	thene	56.1		μg/L	50.00	ND	112	67-126		30	
cis-1,3-Dichlorop	ropene	57.5		μg/L	50.00	ND	115	49.9-139		30	
Dibromochlorome	ethane	47.4		μg/L	50.00	ND	94.8	52.1-132		30	
Ethylbenzene		60.9		μg/L	50.00	1.62	119	33.4-133		30	
m,p-Xylene		113		μg/L	100.0	1.62	112	30.5-132		30	
Methylene chloric	de	55.8		μg/L	50.00	2.98	106	53.8-125		30	
Methyl-t-Butyl Eth	ner	53.4		μg/L	50.00	ND	107	41.1-144		30	
o-Xylene		57.3		μg/L	50.00	ND	115	38-123		30	
Styrene		43.5		μg/L	50.00	ND	87.0	16.9-131		30	
Tetrachloroethen	е	59.4		μg/L	50.00	ND	119	43-135		30	
Toluene		63.9		μg/L	50.00	5.44	117	35.2-143		30	
trans-1,2-Dichlore	pethene	55.0		μg/L	50.00	ND	110	53.7-120		30	
trans-1,3-Dichlore	opropene	60.8		μg/L	50.00	ND	122	42-148		30	
Trichloroethene		53.2		μg/L	50.00	ND	106	37.1-145		30	
Trichlorofluorome	ethane	64.5		μg/L	50.00	ND	129	40.5-141		30	
Vinyl Acetate		72.0		μg/L	50.00	ND	144	22.5-184		30	
Vinyl chloride		47.8		μg/L	50.00	ND	95.6	54.5-143		30	
Surrogate: 1,2-Di	ichloroethane-d4	47		μg/L	50.00		94.9	51.7-162			
Surrogate: 4-Bro	mofluorobenzene	46		μg/L	50.00		92.1	57.4-135			
Surrogate: Dibroi	mofluoromethane	49		μg/L	50.00		97.3	63.5-139			
Surrogate: Tolue	ne-d8	57		μg/L	50.00		115	66.6-143			



Client: LATA-Kemron Remediation LLC - Albuquerque, NM Metals - Quality Control

Work Order: 1010668

Project: Bautsch - Gray Mine Site

**Batch:** B006234 **Prep:** SW846 3050B



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**Metals - Quality Control** 

Work Order: 1010668

Silver

Project: Bautsch - Gray Mine Site

Batch: B006234 Prep: SW846 3050B

Total Metals	by ICP									
Sample ID: Source:	Blank (B006234-BLK1)	ı	Method:	SW-846	6010B		Prepped: Analyzed:		0/2010 2/2010	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	ND	0.50	mg/Kg wet							
Barium	ND	0.10	mg/Kg wet							
Cadmium	ND	0.10	mg/Kg wet							
Chromium	ND	0.15	mg/Kg wet							
Lead	ND	0.38	mg/Kg wet							
Selenium	ND	1.5	mg/Kg wet							
Silver	ND	0.50	mg/Kg wet							
Sample ID: Source:	LCS (B006234-BS1)	P	Method:	SW-846	6010B		Prepped: Analyzed:		0/2010 2/2010	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	228	1.0	mg/Kg wet	238.0		96.0	65.1-118		20	
Barium	239	0.20	mg/Kg wet	243.0		98.4	68.3-118		20	
Cadmium	169	0.20	mg/Kg wet	185.0		91.4	64.9-112		20	
Chromium	107	0.30	mg/Kg wet	104.0		103	65.8-124		20	
Lead	135	0.75	mg/Kg wet	154.0		87.9	62.9-110		20	
Selenium	131	3.0	mg/Kg wet	156.0		83.8	54.9-110		20	
Silver	64.2	1.0	mg/Kg wet	73.20		87.7	56.8-113		20	
Sample ID:	Matrix Spike (B006234-MS1) 10I0668-01	ľ	Method:	SW-846	6010B		Prepped: Analyzed:		0/2010 2/2010	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	119	0.58	mg/Kg dry	116.9	3.03	98.8	75-125		20	
Barium	255	0.12	mg/Kg dry	128.6	6.71	193	75-125		20	S
Cadmium	12.1	0.12	mg/Kg dry	11.69	0.221	102	75-125		20	
Chromium	132	0.18	mg/Kg dry	116.9	2.33	111	75-125		20	
Lead	129	0.44	mg/Kg dry	116.9	22.3	91.3	75-125		20	
Selenium	112	1.8	mg/Kg dry	116.9	5.92	91.0	75-125		20	
Silver	11.2	0.58	mg/Kg dry	11.69	0.176	94.1	75-125		20	
Sample ID:	Matrix Spike Dup (B006234-MSD1) 1010668-01	ı	Method:	SW-846	6010B		Prepped:		0/2010 2/2010	
Analyte	Result	Limit	Units	Level	Result	%REC	Analyzed: Limits	RPD	Limit	
Arsenic	117	0.58	mg/Kg dry	116.9	3.03	97.2	75-125	1.64	20	Quai
Barium	256	0.38	mg/Kg dry	128.6	6.71	194	75-125 75-125	0.321	20	S
Cadmium	11.2	0.12	mg/Kg dry	11.69	0.71	93.8	75-125 75-125	7.88	20	3
Chromium	130	0.12	mg/Kg dry	116.9	2.33	93.6 109	75-125 75-125	1.56	20	
Lead	127	0.16	mg/Kg dry	116.9	2.33	89.3	75-125 75-125	1.87	20	
	110		0 0 ,	116.9	5.92	89.3 89.2	75-125 75-125	1.87	20	
Selenium	110	1.8	mg/Kg dry	116.9	5.92	89.2	75-125	1.84	20	

11.69

0.176

93.2

75-125

0.946

20

0.58 mg/Kg dry

11.1



Client: LATA-Kemron Remediation LLC - Albuquerque, NM Metals - Quality Control

Work Order: 1010668

Project: Bautsch - Gray Mine Site

**Batch:** B006234 **Prep:** SW846 3050B

Post Spike (B006234-PS1) SW-846 6010B 09/20/2010 08:44 Sample ID: Method: Prepped: 1010668-01 Source: Analyzed: 09/23/2010 12:43 Analyte Result Limit Units Level Result %REC Limits RPD Limit Qual 4.38 85-115 Barium mg/Kg 2.200 0.118 194 S

Batch: B006249 Prep: SW-846 7471

#### **Total Mercury by CVAA**

Sample ID: Source:	Blank (B006249-BLK1)		Method:	SW-846	7471A		Prepped: Analyzed:		0/2010 ( 1/2010 <sup>-</sup>	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	ND	0.0010	mg/Kg wet		rtoodit	701120	Liiiito	Т	Liiiii	Quui
Sample ID:	LCS (B006249-BS1)	ı	Method:	SW-846	7471A		Prepped:		0/2010 (	
Source:							Analyzed:	09/2	1/2010 1	13:19
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	5.94	2.0	mg/Kg wet	7.070		84.0	41.9-122			
Sample ID:	Matrix Spike (B006249-MS1)	r	Method:	SW-846	7471A	ı	Prepped:	09/2	0/2010 (	08:46
Source:	1010668-01						Analyzed:	09/2	1/2010 1	13:30
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	0.117	0.042	mg/Kg dry	0.08350	0.0343	99.0	70-130		20	
Sample ID:	Matrix Spike Dup (B006249-MSD1)	ı	Method:	SW-846	7471A	ı	Prepped:	09/2	0/2010 (	08:46
Source:	1010668-01					,	Analyzed:	09/2	1/2010	13:32
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	0.110	0.043	mg/Kg dry	0.08595	0.0343	88.4	70-130	5.94	20	



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Wet Chemistry - Quality Control

Work Order: 1010668

Project: Bautsch - Gray Mine Site

**Batch:** B006258

#### **Percent Solids**

Sample ID: Source:	Duplicate (B006258-DUP <sup>2</sup> 1010668-01	1)	M	lethod:	SM2540	)B Rev 18		Prepped: Analyzed:		0/2010 1 1/2010 (	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Percent Solids		85.5	0.10	wt%		85.5			0.102	20	

800 [] Level II [] Level III CLP-like [] Level IV CLP-like For Lab Use Only RIPOTA 0 Chain of Custody Record Date/Time Date/Time Date/Tjme Report Type 00 M M M M ⊽ ] Archive \*\* Preservative Types: (1) HNO3, (2) H2SO4, (3) HCI, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved Hernail (address) tom Lrmson agmal Instructions on back [] Results Only Page [] Level IV [] Level [] Return Received for Lab By (signature) Number \* Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify) Received By (signature) Received By (signature) Sampler Phone # Dispose as appropriate **Turnaround Time** [WRoutine (Zworking days) (needed by) [] RUSH\* (notify lab) Indianapolis, IN 46278 5713 West 85th Street Sample Disposition Preservative Fax: 317-872-1379 Requested Tel: 317-872-1375 VArions Analyses Types \*\* 6ray Mine Site Date/Time Date/Tinge Date/frime Compliance Monitoring? [] Yes(1) [4/No No. of Containers PO# LKR 21-10-008 Time Collected Relinquisped By (signature) Refinquished By (signature) Relinquished By (signature) longer Sampler Signature Radioactive FIA-Kemina Femediation UL Project BAUTSCh Merrillville, IN 46410 X250 West 84th Drive Date Collected Fax: 219-769-1664 Tel: 219-769-8378 (1)Agency/Program Filtered 2424 LOUISIANA BIND. NE SPEHORLOCATION ] Non-Hazardous Composite Grab 2110 K [] Fax (fax #) 0 Submitted to: Matrix\* J [] Hazardous Tom Kimson Sample temperature upon receipt in degrees C = える 4096-ES9-H19 [] Mail [] Telephone City, State, Zip A | buguerque OM LAMSON Client Sample ID ssible Hazard Identification Sampled by (PRINT) Send Report via elephone # Client Name E SAGE 8/25000 rev. 11/04/04 Address Contact LATA-Kemron Remediation LLC Bautsch - Grav Mine Site 



Work Order No.: 10I0637

September 27, 2010

LATA-Kemron Remediation LLC - Albuquerque, N 2424 Louisiana Blvd. NE, Suite 400 Albuquerque, NM 87110

Re: Bautsch - Gray Mine Site

Dear Tom Urmson:

Microbac Laboratories, Inc. - Chicagoland Division received 2 sample(s) on 9/17/2010 10:00:00AM for the analyses presented in the following report as Work Order 10I0637.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please feel free to contact us.

Sincerely,

Microbac Laboratories, Inc.

Deborah Griffiths

Senior Project Manager



#### **WORK ORDER SAMPLE SUMMARY**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Project: Bautsch - Gray Mine Site

**Lab Order:** 1010637

Lab Sample ID	Client Sample ID	Tag Number	<b>Collection Date</b>	Date Received
1010637-01	BH1		09/16/2010 12:30	9/17/2010 10:00:00AM
1010637-02	BH2		09/16/2010 12:40	9/17/2010 10:00:00AM

Monday, September 27, 2010

Date:



Date:

Monday, September 27, 2010

### **Analytical Results**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BH1
 Work Order/ID:
 10I0637-01

 Sample Description:
 Sampled:
 09/16/2010 12:30

 Sample Description:
 Sampled:
 09/16/2010
 12:30

 Matrix:
 Solid
 Received:
 09/17/2010
 10:00

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed	
		Method: SW-846 808	32		Analyst:jw			
Polychlorinated Biphenyls	F	Prep Method: SW846 355	0			Prep Date/	Time: 09/21/2010 06:07	
Aroclor 1016	А	ND	37		μg/Kg dry	1	09/21/2010 17:14	
Aroclor 1221	А	ND	37		μg/Kg dry	1	09/21/2010 17:14	
Aroclor 1232	Α	ND	37		μg/Kg dry	1	09/21/2010 17:14	
Aroclor 1242	Α	ND	37		μg/Kg dry	1	09/21/2010 17:14	
Aroclor 1248	Α	ND	37		μg/Kg dry	1	09/21/2010 17:14	
Aroclor 1254	А	ND	37		μg/Kg dry	1	09/21/2010 17:14	
Aroclor 1260	Α	ND	37		μg/Kg dry	1	09/21/2010 17:14	
Aroclor 1262	Α	ND	37		μg/Kg dry	1	09/21/2010 17:14	
Aroclor 1268	А	ND	37		μg/Kg dry	1	09/21/2010 17:14	
Total PCB's	Α	ND	37		μg/Kg dry	1	09/21/2010 17:14	
Surr: Decachlorobiphenyl	S	85.00	38-128		%REC	1	09/21/2010 17:14	
Surr: Tetrachloro-m-xylene	S	90.00	40-130		%REC	1	09/21/2010 17:14	

		Method: SW-846 82			Analyst: cr				
Semivolatile Organic Compounds	P	rep Method: SW846 35	50A	<u></u>	Prep Date	Time: 09/23/2010 07:21			
1,2,4-Trichlorobenzene	A	ND	370	μg/Kg dry	1	09/23/2010 12:48			
1,2-Dichlorobenzene	A	ND	370	μg/Kg dry	1	09/23/2010 12:48			
1,2-Diphenyl-hydrazine	A	ND	370	μg/Kg dry	1	09/23/2010 12:48			
1,3-Dichlorobenzene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48			
1,4-Dichlorobenzene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48			
2,2'-oxybis(1-chloropropane)	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48			
2,4,5-Trichlorophenol	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48			
2,4,6-Trichlorophenol	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48			
2,4-Dichlorophenol	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48			
2,4-Dimethylphenol	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48			
2,4-Dinitrophenol	Α	ND	1800	μg/Kg dry	1	09/23/2010 12:48			
2,4-Dinitrotoluene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48			
2,6-Dichlorophenol	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48			
2,6-Dinitrotoluene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48			
2-Chloronaphthalene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48			
2-Chlorophenol	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48			
2-Methyl-4,6-dinitrophenol	Α	ND	1800	μg/Kg dry	1	09/23/2010 12:48			
2-Methylnaphthalene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48			
2-Methylphenol	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48			
2-Nitroaniline	Α	ND	1800	μg/Kg dry	1	09/23/2010 12:48			
2-Nitrophenol	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48			
3,3'-Dichlorobenzidine	Α	ND	1800	μg/Kg dry	1	09/23/2010 12:48			
3,4-Benzofluoranthene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48			
3/4-Methylphenol	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48			
3-Nitroaniline	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48			
4,6-Dinitro-2-methylphenol	Α	ND	1800	μg/Kg dry	1	09/23/2010 12:48			
4,6-Dinitro-o-cresol	Α	ND	1800	μg/Kg dry	1	09/23/2010 12:48			



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BH1
 Work Order/ID:
 10I0637-01

 Sample Description:
 Sampled:
 09/16/2010
 12:30

Date:

Monday, September 27, 2010

Matrix: Solid Received: 09/17/2010 10:00

nalyses	AT	Result	RL	Qual Units	DF	Analyzed
		Method: SW-846 827	0C		An	alyst: <b>cr</b>
emivolatile Organic Compounds	F	Prep Method: SW846 3550	)A		Prep Date/	Time: 09/23/2010 07:21
4-Bromophenyl phenyl ether	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
4-Chloro-3-methylphenol	Α	ND	730	μg/Kg dry	1	09/23/2010 12:48
4-Chloroaniline	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
4-Chlorophenyl phenyl ether	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
4-Nitroaniline	Α	ND	1800	μg/Kg dry	1	09/23/2010 12:48
4-Nitrophenol	Α	ND	1800	μg/Kg dry	1	09/23/2010 12:48
Acenaphthene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Acenaphthylene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Acetophenone	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Aniline	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Anthracene	А	ND	370	μg/Kg dry	1	09/23/2010 12:48
Benzidine	Α	ND	1800	μg/Kg dry	1	09/23/2010 12:48
Benzo[a]anthracene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Benzo[a]pyrene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Benzo[b]fluoranthene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Benzo[g,h,i]perylene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Benzo[k]fluoranthene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Benzoic acid	Α	ND	1800	μg/Kg dry	1	09/23/2010 12:48
Benzyl alcohol	Α	ND	730	μg/Kg dry	1	09/23/2010 12:48
beta-Chloronaphthalene	А	ND	370	μg/Kg dry	1	09/23/2010 12:48
Bis(2-chloroethoxy)methane	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Bis(2-chloroethyl)ether	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Bis(2-ethylhexyl)phthalate	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Butyl benzyl phthalate	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Carbazole	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Chrysene	А	ND	370	μg/Kg dry	1	09/23/2010 12:48
Di(2-ethylhexyl) phthalate	А	ND	370	μg/Kg dry	1	09/23/2010 12:48
Dibenz[a,h]anthracene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Dibenzofuran	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Diethyl phthalate	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Dimethyl phthalate	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Di-n-butyl phthalate	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Di-n-octyl phthalate	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Fluoranthene	А	ND	370	μg/Kg dry	1	09/23/2010 12:48
Fluorene	А	ND	370	μg/Kg dry	1	09/23/2010 12:48
Hexachlorobenzene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Hexachlorobutadiene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Hexachlorocyclopentadiene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Hexachloroethane	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Indeno[1,2,3cd]pyrene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48
Isophorone	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BH1
 Work Order/ID:
 10I0637-01

 Sample Description:
 Sampled:
 09/16/2010
 12:30

Date:

Monday, September 27, 2010

Matrix: Solid Received: 09/17/2010 10:00

nalyses	AT	Result	RL	Qual Units	DF	Analyzed		
		Method: SW-846 827	70C		An	alyst: <b>cr</b>		
emivolatile Organic Compounds	F	rep Method: SW846 355	0A		Prep Date/Time: 09/23/2010 07:2			
m-Dichlorobenzene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48		
Naphthalene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48		
Nitrobenzene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48		
N-Nitrosodimethylamine	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48		
N-Nitrosodi-n-propylamine	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48		
N-Nitrosodiphenylamine	А	ND	370	μg/Kg dry	1	09/23/2010 12:48		
o-Chlorophenol	А	ND	370	μg/Kg dry	1	09/23/2010 12:48		
p-Chloroaniline	А	ND	730	μg/Kg dry	1	09/23/2010 12:48		
p-Chloro-m-cresol	А	ND	730	μg/Kg dry	1	09/23/2010 12:48		
p-Cresol	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48		
Pentachlorophenol	А	ND	1800	μg/Kg dry	1	09/23/2010 12:48		
Phenanthrene	Α	ND	370	μg/Kg dry	1	09/23/2010 12:48		
Phenol	А	ND	370	μg/Kg dry	1	09/23/2010 12:48		
Pyrene	А	ND	370	μg/Kg dry	1	09/23/2010 12:48		
Pyridine	А	ND	370	μg/Kg dry	1	09/23/2010 12:48		
Total Cresol	М	ND	370	μg/Kg dry	1	09/23/2010 12:48		
Surr: 2,4,6-Tribromophenol	S	81.50	13.9-145	%REC	1	09/23/2010 12:48		
Surr: 2-Fluorobiphenyl	S	81.10	28.1-110	%REC	1	09/23/2010 12:48		
Surr: 2-Fluorophenol	S	71.00	24.5-110	%REC	1	09/23/2010 12:48		
Surr: Nitrobenzene-d5	S	80.70	33.6-110	%REC	1	09/23/2010 12:48		
Surr: Phenol-d5	S	76.80	29.6-110	%REC	1	09/23/2010 12:48		
Surr: Terphenyl-d14	S	96.10	35.8-121	%REC	1	09/23/2010 12:48		

Valatila Organia	Compoundo	EO2E prop	CD procesus
Volatile Organic	Compounds.	5035 prep.	<b>5B</b> breserve

Aı	nalyst: <b>JLN</b>
Prep Date	/Time: 09/17/2010 11:58

€				Prep Date/	Time: 09/17/2010 11:58
Α	ND	6.3	μg/Kg dry	1	09/17/2010 15:08
Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
Α	ND	6.3	μg/Kg dry	1	09/17/2010 15:08
Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
Α	ND	32	μg/Kg dry	1	09/17/2010 15:08
Α	ND	63	μg/Kg dry	1	09/17/2010 15:08
Α	ND	63	μg/Kg dry	1	09/17/2010 15:08
Α	4.9	3.2	μg/Kg dry	1	09/17/2010 15:08
Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
	A A A A A A A A A A A A A A A A A A A	A       ND         A       ND         A       ND         A       ND         A       ND         A       ND         A       ND         A       ND         A       ND         A       ND         A       ND         A       ND         A       ND         A       ND         A       ND         A       ND         A       4.9         A       ND	A       ND       6.3         A       ND       3.2         A       ND       6.3         A       ND       3.2         A       ND       3.2         A       ND       3.2         A       ND       63         A       ND       63         A       ND       63         A       4.9       3.2         A       ND       3.2	A         ND         6.3         µg/Kg dry           A         ND         3.2         µg/Kg dry           A         ND         6.3         µg/Kg dry           A         ND         3.2         µg/Kg dry           A         ND         3.2         µg/Kg dry           A         ND         63         µg/Kg dry           B <td< td=""><td>A       ND       6.3       μg/Kg dry       1         A       ND       3.2       μg/Kg dry       1         A       ND       6.3       μg/Kg dry       1         A       ND       3.2       μg/Kg dry       1         A       ND       3.2       μg/Kg dry       1         A       ND       3.2       μg/Kg dry       1         A       ND       63       μg/Kg dry</td></td<>	A       ND       6.3       μg/Kg dry       1         A       ND       3.2       μg/Kg dry       1         A       ND       6.3       μg/Kg dry       1         A       ND       3.2       μg/Kg dry       1         A       ND       3.2       μg/Kg dry       1         A       ND       3.2       μg/Kg dry       1         A       ND       63       μg/Kg dry

Method: SW-846 8260B



Date:

Monday, September 27, 2010

### **Analytical Results**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BH1
 Work Order/ID:
 1010637-01

 Sample Description:
 Sampled:
 09/16/2010
 12:30

Matrix: Solid Received: 09/17/2010 10:00

nalyses	AT	Result	RL	Qual Units	DF	Analyzed
		Method: <b>SW-846 826</b>	50B		An	alyst: <b>JLN</b>
olatile Organic Compounds, 5035 prep,	SB preserve				Prep Date/	Time: <b>09/17/2010 11:5</b>
Bromomethane	Α	ND	6.3	μg/Kg dry	1	09/17/2010 15:08
Carbon Disulfide	Α	ND	6.3	μg/Kg dry	1	09/17/2010 15:08
Carbon tetrachloride	Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
Chlorobenzene	Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
Chloroethane	Α	ND	6.3	μg/Kg dry	1	09/17/2010 15:08
Chloroform	Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
Chloromethane	Α	ND	6.3	μg/Kg dry	1	09/17/2010 15:08
cis-1,2-Dichloroethene	Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
cis-1,3-Dichloropropene	Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
Dibromochloromethane	Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
Ethylbenzene	Α	7.3	3.2	μg/Kg dry	1	09/17/2010 15:08
m,p-Xylene	Α	5.4	3.2	μg/Kg dry	1	09/17/2010 15:08
Methylene chloride	Α	ND	13	μg/Kg dry	1	09/17/2010 15:08
Methyl-t-Butyl Ether	Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
o-Xylene	Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
Styrene	Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
Tetrachloroethene	Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
Toluene	Α	15	3.2	μg/Kg dry	1	09/17/2010 15:08
trans-1,2-Dichloroethene	Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
trans-1,3-Dichloropropene	Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
Trichloroethene	Α	ND	3.2	μg/Kg dry	1	09/17/2010 15:08
Trichlorofluoromethane	Α	ND	6.3	μg/Kg dry	1	09/17/2010 15:08
Vinyl Acetate	Α	ND	6.3	μg/Kg dry	1	09/17/2010 15:08
Vinyl chloride	Α	ND	6.3	μg/Kg dry	1	09/17/2010 15:08
Total 1,2-Dichloroethene	M	ND	6.3	μg/Kg dry	1	09/17/2010 15:08
Total Xylenes	M	7.9	3.2	μg/Kg dry	1	09/17/2010 15:08
Surr: 1,2-Dichloroethane-d4	S	110.00	51.7-162	%REC	1	09/17/2010 15:08
Surr: 4-Bromofluorobenzene	S	102.00	57.4-135	%REC	1	09/17/2010 15:08
Surr: Dibromofluoromethane	S	101.00	63.5-139	%REC	1	09/17/2010 15:08
Surr: Toluene-d8	S	103.00	66.6-143	%REC	1	09/17/2010 15:08

			Method: <b>SW-846</b> 60	010B		Αı	nalyst: <b>SA</b>
Т	otal Metals by ICP	F	Prep Method: SW846 30	Pi	Prep Date/Time: 09/20/2010 08:44		
	Arsenic	Α	3.3	0.56	mg/Kg dry	1	09/22/2010 20:29
	Barium	Α	12	0.11	mg/Kg dry	1	09/22/2010 20:29
	Cadmium	Α	0.30	0.11	mg/Kg dry	1	09/22/2010 20:29
	Chromium	Α	2.7	0.17	mg/Kg dry	1	09/22/2010 20:29
	Lead	Α	49	0.42	mg/Kg dry	1	09/22/2010 20:29
	Selenium	Α	5.3	1.7	mg/Kg dry	1	09/22/2010 20:29
	Silver	Α	ND	0.56	mg/Kg dry	1	09/22/2010 20:29

Method: **SW-846 7471A**Prep Method: **SW-846 7471** 

Analyst: **SA**Prep Date/Time: **09/20/2010 08:46** 



Analytical Results Date: Monday, September 27, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BH1
 Work Order/ID:
 1010637-01

 Sample Description:
 Sampled:
 09/16/2010
 12:30

 Matrix:
 Solid
 Received:
 09/17/2010
 10:00

AT Result RL Units DF **Analyses** Qual Analyzed Method: SW-846 7471A Analyst: SA **Total Mercury by CVAA** Prep Method: SW-846 7471 Prep Date/Time: 09/20/2010 08:46 0.045 09/21/2010 13:26 Mercury mg/Kg dry

Method: SM2540B Rev 18 Analyst: CSTAS

 Percent Solids
 Prep Date/Time: 09/17/2010 15:01

 Percent Solids
 A 90
 0.10
 wt%
 1 09/20/2010 6:30



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BH2
 Work Order/ID:
 1010637-02

 Sample Description:
 Sampled:
 09/16/2010 12:40

 Sample Description:
 Sampled:
 09/16/2010
 12:40

 Matrix:
 Solid
 Received:
 09/17/2010
 10:00

Analyses	AT	Result	RL	Qual Units	DF .	Analyzed
		Method: SW-846 8082	2		An	alyst: <b>jw</b>
Polychlorinated Biphenyls	Р	rep Method: SW846 3550			Prep Date/	Time: 09/21/2010 06:07
Aroclor 1016	Α	ND	34	μg/Kg dry	1	09/21/2010 17:39
Aroclor 1221	А	ND	34	μg/Kg dry	1	09/21/2010 17:39
Aroclor 1232	А	ND	34	μg/Kg dry	1	09/21/2010 17:39
Aroclor 1242	Α	ND	34	μg/Kg dry	1	09/21/2010 17:39
Aroclor 1248	А	ND	34	μg/Kg dry	1	09/21/2010 17:39
Aroclor 1254	А	ND	34	μg/Kg dry	1	09/21/2010 17:39
Aroclor 1260	А	ND	34	μg/Kg dry	1	09/21/2010 17:39
Aroclor 1262	А	ND	34	μg/Kg dry	1	09/21/2010 17:39
Aroclor 1268	А	ND	34	μg/Kg dry	1	09/21/2010 17:39
Total PCB's	А	ND	34	μg/Kg dry	1	09/21/2010 17:39
Surr: Decachlorobiphenyl	S	85.00	38-128	%REC	1	09/21/2010 17:39
Surr: Tetrachloro-m-xylene	S	85.00	40-130	%REC	1	09/21/2010 17:39

mivolatile Organic Compounds	Pre	Analyst: <b>cr</b> Prep Date/Time: <b>09/23/2010 07:2</b> 1				
1,2,4-Trichlorobenzene	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
1,2-Dichlorobenzene	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
1,2-Diphenyl-hydrazine	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
1,3-Dichlorobenzene	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
1,4-Dichlorobenzene	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
2,2'-oxybis(1-chloropropane)	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
2,4,5-Trichlorophenol	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
2,4,6-Trichlorophenol	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
2,4-Dichlorophenol	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
2,4-Dimethylphenol	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
2,4-Dinitrophenol	А	ND	1700	μg/Kg dry	1	09/23/2010 13:11
2,4-Dinitrotoluene	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
2,6-Dichlorophenol	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
2,6-Dinitrotoluene	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
2-Chloronaphthalene	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
2-Chlorophenol	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
2-Methyl-4,6-dinitrophenol	А	ND	1700	μg/Kg dry	1	09/23/2010 13:11
2-Methylnaphthalene	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
2-Methylphenol	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
2-Nitroaniline	А	ND	1700	μg/Kg dry	1	09/23/2010 13:11
2-Nitrophenol	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
3,3'-Dichlorobenzidine	А	ND	1700	μg/Kg dry	1	09/23/2010 13:11
3,4-Benzofluoranthene	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
3/4-Methylphenol	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
3-Nitroaniline	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
4,6-Dinitro-2-methylphenol	А	ND	1700	μg/Kg dry	1	09/23/2010 13:11
4,6-Dinitro-o-cresol	А	ND	1700	μg/Kg dry	1	09/23/2010 13:11

Monday, September 27, 2010

Date:



#### **Analytical Results**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BH2
 Work Order/ID:
 10I0637-02

 Sample Description:
 Sampled:
 09/16/2010
 12:40

 Matrix:
 Solid
 Received:
 09/17/2010
 10:00

nalyses	AT	Result	RL	Qual Units	DF	Analyzed
		Method: SW-846 827	0C		An	alyst: <b>cr</b>
emivolatile Organic Compounds	F	Prep Method: SW846 3550	)A		Prep Date/	Time: 09/23/2010 07:2
4-Bromophenyl phenyl ether	Α	ND	340	μg/Kg dry	1	09/23/2010 13:11
4-Chloro-3-methylphenol	Α	ND	680	μg/Kg dry	1	09/23/2010 13:11
4-Chloroaniline	Α	ND	340	μg/Kg dry	1	09/23/2010 13:11
4-Chlorophenyl phenyl ether	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
4-Nitroaniline	Α	ND	1700	μg/Kg dry	1	09/23/2010 13:11
4-Nitrophenol	Α	ND	1700	μg/Kg dry	1	09/23/2010 13:11
Acenaphthene	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
Acenaphthylene	Α	ND	340	μg/Kg dry	1	09/23/2010 13:11
Acetophenone	Α	ND	340	μg/Kg dry	1	09/23/2010 13:11
Aniline	Α	ND	340	μg/Kg dry	1	09/23/2010 13:11
Anthracene	Α	ND	340	μg/Kg dry	1	09/23/2010 13:11
Benzidine	Α	ND	1700	μg/Kg dry	1	09/23/2010 13:11
Benzo[a]anthracene	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
Benzo[a]pyrene	Α	ND	340	μg/Kg dry	1	09/23/2010 13:11
Benzo[b]fluoranthene	Α	ND	340	μg/Kg dry	1	09/23/2010 13:11
Benzo[g,h,i]perylene	Α	ND	340	μg/Kg dry	1	09/23/2010 13:11
Benzo[k]fluoranthene	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
Benzoic acid	Α	ND	1700	μg/Kg dry	1	09/23/2010 13:11
Benzyl alcohol	Α	ND	680	μg/Kg dry	1	09/23/2010 13:11
beta-Chloronaphthalene	Α	ND	340	μg/Kg dry	1	09/23/2010 13:11
Bis(2-chloroethoxy)methane	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
Bis(2-chloroethyl)ether	Α	ND	340	μg/Kg dry	1	09/23/2010 13:11
Bis(2-ethylhexyl)phthalate	Α	ND	340	μg/Kg dry	1	09/23/2010 13:11
Butyl benzyl phthalate	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
Carbazole	Α	ND	340	μg/Kg dry	1	09/23/2010 13:11
Chrysene	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
Di(2-ethylhexyl) phthalate	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
Dibenz[a,h]anthracene	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
Dibenzofuran	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
Diethyl phthalate	Α	ND	340	μg/Kg dry	1	09/23/2010 13:11
Dimethyl phthalate	Α	ND	340	μg/Kg dry	1	09/23/2010 13:11
Di-n-butyl phthalate	Α	ND	340	μg/Kg dry	1	09/23/2010 13:11
Di-n-octyl phthalate	Α	ND	340	μg/Kg dry	1	09/23/2010 13:11
Fluoranthene	Α	ND	340	μg/Kg dry	1	09/23/2010 13:11
Fluorene	Α	ND	340	μg/Kg dry	1	09/23/2010 13:11
Hexachlorobenzene	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
Hexachlorobutadiene	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
Hexachlorocyclopentadiene	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
Hexachloroethane	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
Indeno[1,2,3cd]pyrene	А	ND	340	μg/Kg dry	1	09/23/2010 13:11
Isophorone	А	ND	340	μg/Kg dry	1	09/23/2010 13:11

Monday, September 27, 2010

Date:



## **Analytical Results**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**Client Project:** Bautsch - Gray Mine Site

Client Sample ID: BH2 Work Order/ID: 1010637-02

Date:

Monday, September 27, 2010

**Sample Description:** Sampled: 09/16/2010 12:40 Matrix: Solid Received: 09/17/2010 10:00

Analyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: SW-846 827	0C			An	alyst: <b>cr</b>
Semivolatile Organic Compounds	F	Prep Method: SW846 3550	)A		F	Prep Date/	Time: 09/23/2010 07:21
m-Dichlorobenzene	Α	ND	340	μg/	Kg dry	1	09/23/2010 13:11
Naphthalene	Α	ND	340	μg/	Kg dry	1	09/23/2010 13:11
Nitrobenzene	Α	ND	340	μg/	Kg dry	1	09/23/2010 13:11
N-Nitrosodimethylamine	Α	ND	340	μg/	Kg dry	1	09/23/2010 13:11
N-Nitrosodi-n-propylamine	Α	ND	340	μg/	Kg dry	1	09/23/2010 13:11
N-Nitrosodiphenylamine	Α	ND	340	μg/	Kg dry	1	09/23/2010 13:11
o-Chlorophenol	Α	ND	340	μg/	Kg dry	1	09/23/2010 13:11
p-Chloroaniline	Α	ND	680	μg/	Kg dry	1	09/23/2010 13:11
p-Chloro-m-cresol	Α	ND	680	μg/	Kg dry	1	09/23/2010 13:11
p-Cresol	Α	ND	340	μg/	Kg dry	1	09/23/2010 13:11
Pentachlorophenol	Α	ND	1700	μg/	Kg dry	1	09/23/2010 13:11
Phenanthrene	Α	ND	340	μg/	Kg dry	1	09/23/2010 13:11
Phenol	Α	ND	340	μg/	Kg dry	1	09/23/2010 13:11
Pyrene	Α	ND	340	μg/	Kg dry	1	09/23/2010 13:11
Pyridine	Α	ND	340	μg/	Kg dry	1	09/23/2010 13:11
Total Cresol	М	ND	340	μg/	Kg dry	1	09/23/2010 13:11
Surr: 2,4,6-Tribromophenol	S	76.50	13.9-145	%F	REC	1	09/23/2010 13:11
Surr: 2-Fluorobiphenyl	S	71.80	28.1-110	%F	REC	1	09/23/2010 13:11
Surr: 2-Fluorophenol	S	60.40	24.5-110	%F	REC	1	09/23/2010 13:11
Surr: Nitrobenzene-d5	S	66.10	33.6-110	%F	REC	1	09/23/2010 13:11
Surr: Phenol-d5	S	71.00	29.6-110	%F	REC	1	09/23/2010 13:11
Surr: Terphenyl-d14	S	93.70	35.8-121	%F	REC	1	09/23/2010 13:11

Volatile Organic	Compounds	5035 nron	SR prosprva

		Method: SW-846 82	60B		An	alyst: <b>JLN</b>		
olatile Organic Compounds, 5035 prep, SB pi	reserve				Prep Date/Time: 09/17/2010 11:58			
1,1,1,2-Tetrachloroethane	А	ND	4.3	μg/Kg dry	1	09/17/2010 15:38		
1,1,1-Trichloroethane	А	ND	2.1	μg/Kg dry	1	09/17/2010 15:38		
1,1,2,2-Tetrachloroethane	А	ND	2.1	μg/Kg dry	1	09/17/2010 15:38		
1,1,2-Trichloroethane	А	ND	2.1	μg/Kg dry	1	09/17/2010 15:38		
1,1-Dichloroethane	Α	ND	2.1	μg/Kg dry	1	09/17/2010 15:38		
1,1-Dichloroethene	Α	ND	2.1	μg/Kg dry	1	09/17/2010 15:38		
1,2-Dichloroethane	А	ND	2.1	μg/Kg dry	1	09/17/2010 15:38		
1,2-Dichloropropane	А	ND	2.1	μg/Kg dry	1	09/17/2010 15:38		
2-Butanone	А	ND	4.3	μg/Kg dry	1	09/17/2010 15:38		
2-Hexanone	Α	ND	2.1	μg/Kg dry	1	09/17/2010 15:38		
4-Methyl-2-Pentanone	Α	ND	2.1	μg/Kg dry	1	09/17/2010 15:38		
Acetone	Α	ND	21	μg/Kg dry	1	09/17/2010 15:38		
Acrolein	Α	ND	43	μg/Kg dry	1	09/17/2010 15:38		
Acrylonitrile	Α	ND	43	μg/Kg dry	1	09/17/2010 15:38		
Benzene	А	2.3	2.1	μg/Kg dry	1	09/17/2010 15:38		
Bromodichloromethane	Α	ND	2.1	μg/Kg dry	1	09/17/2010 15:38		
Bromoform	Α	ND	2.1	μg/Kg dry	1	09/17/2010 15:38		



#### **Analytical Results**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BH2
 Work Order/ID:
 1010637-02

 Sample Description:
 Sampled:
 09/16/2010
 12:40

Matrix: Solid Received: 09/17/2010 10:00

nalyses	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: SW-846 82	60B				alyst: <b>JLN</b>
olatile Organic Compounds, 5035 prep,	SB preserve				F	rep Date/	Time: 09/17/2010 11:5
Bromomethane	Α	ND	4.3	μ	g/Kg dry	1	09/17/2010 15:38
Carbon Disulfide	Α	ND	4.3	μ	g/Kg dry	1	09/17/2010 15:38
Carbon tetrachloride	Α	ND	2.1	μ	g/Kg dry	1	09/17/2010 15:38
Chlorobenzene	Α	ND	2.1	μ	g/Kg dry	1	09/17/2010 15:38
Chloroethane	Α	ND	4.3	μ	g/Kg dry	1	09/17/2010 15:38
Chloroform	Α	ND	2.1	μ	g/Kg dry	1	09/17/2010 15:38
Chloromethane	Α	ND	4.3	μ	g/Kg dry	1	09/17/2010 15:38
cis-1,2-Dichloroethene	Α	ND	2.1	μ	g/Kg dry	1	09/17/2010 15:38
cis-1,3-Dichloropropene	Α	ND	2.1	μ	g/Kg dry	1	09/17/2010 15:38
Dibromochloromethane	Α	ND	2.1	μ	g/Kg dry	1	09/17/2010 15:38
Ethylbenzene	Α	2.8	2.1	μ	g/Kg dry	1	09/17/2010 15:38
m,p-Xylene	Α	2.1	2.1	μ	g/Kg dry	1	09/17/2010 15:38
Methylene chloride	Α	ND	8.6	μ	g/Kg dry	1	09/17/2010 15:38
Methyl-t-Butyl Ether	А	ND	2.1	μ	g/Kg dry	1	09/17/2010 15:38
o-Xylene	А	ND	2.1	μ	g/Kg dry	1	09/17/2010 15:38
Styrene	Α	ND	2.1	μ	g/Kg dry	1	09/17/2010 15:38
Tetrachloroethene	А	ND	2.1	μ	g/Kg dry	1	09/17/2010 15:38
Toluene	А	6.0	2.1	μ	g/Kg dry	1	09/17/2010 15:38
trans-1,2-Dichloroethene	Α	ND	2.1	μ	g/Kg dry	1	09/17/2010 15:38
trans-1,3-Dichloropropene	Α	ND	2.1	μ	g/Kg dry	1	09/17/2010 15:38
Trichloroethene	Α	ND	2.1	μ	g/Kg dry	1	09/17/2010 15:38
Trichlorofluoromethane	А	ND	4.3	μ	g/Kg dry	1	09/17/2010 15:38
Vinyl Acetate	Α	ND	4.3	μ	g/Kg dry	1	09/17/2010 15:38
Vinyl chloride	Α	ND	4.3	μ	g/Kg dry	1	09/17/2010 15:38
Total 1,2-Dichloroethene	M	ND	4.3	μ	g/Kg dry	1	09/17/2010 15:38
Total Xylenes	M	3.0	2.1	μ	g/Kg dry	1	09/17/2010 15:38
Surr: 1,2-Dichloroethane-d4	S	108.00	51.7-162	9	6REC	1	09/17/2010 15:38
Surr: 4-Bromofluorobenzene	S	105.00	57.4-135	9	6REC	1	09/17/2010 15:38
Surr: Dibromofluoromethane	S	99.60	63.5-139	9	6REC	1	09/17/2010 15:38
Surr: Toluene-d8	S	101.00	66.6-143	9	6REC	1	09/17/2010 15:38

			Method: <b>SW-846</b> 60	010B		ıA	nalyst: <b>SA</b>	
Т	otal Metals by ICP	Р	rep Method: SW846 30	50B	Pr	ep Date	/Time: 09/20/2010 08:44	
	Arsenic	Α	4.9	0.51	mg/Kg dry	1	09/22/2010 20:35	
	Barium	Α	120	0.10	mg/Kg dry	1	09/22/2010 20:35	
	Cadmium	Α	0.24	0.10	mg/Kg dry	1	09/22/2010 20:35	
	Chromium	Α	13	0.15	mg/Kg dry	1	09/22/2010 20:35	
	Lead	Α	19	0.38	mg/Kg dry	1	09/22/2010 20:35	
	Selenium	Α	2.2	1.5	mg/Kg dry	1	09/22/2010 20:35	
	Silver	Α	ND	0.51	mg/Kg dry	1	09/22/2010 20:35	

Method: **SW-846 7471A**Prep Method: **SW-846 7471** 

Analyst: **SA**Prep Date/Time: **09/20/2010 08:46** 

Monday, September 27, 2010

Date:



Analytical Results Date: Monday, September 27, 2010

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Client Project: Bautsch - Gray Mine Site

 Client Sample ID:
 BH2
 Work Order/ID:
 1010637-02

Sample Description: Sampled: 09/16/2010 12:40

Matrix: Solid Received: 09/17/2010 10:00

Analyses	AT Result	RL	Qual	Units	DF	Analyzed
	Method: S	W-846 7471A			An	nalyst: <b>SA</b>
Total Mercury by CVAA	Prep Method: S	W-846 7471		Р	rep Date/	Time: 09/20/2010 08:46
Mercury	Α	<b>ND</b> 0.	040	ma/Ka drv	1	09/21/2010 13:27

 Method: SM2540B Rev 18
 Analyst: CSTAS

 Percent Solids
 Percent Solids
 A 97
 0.10
 wt%
 1
 0.9/20/2010 6:30



#### FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

NA = Not Analyzed
mg/l = Milligrams per Lite

mg/L = Milligrams per Liter (ppm) mg/Kg = Milligrams per Kilogram (ppm)

U = Undetected

J = Analyte concentration detected between RL and MDL (Metals / Organics)

B = Detected in the associated method Blank at a concentration above the routine PQL/RL

D = Dilution performed on sample

ND = Not Detected at the Reporting Limit (or the Method Detection Limit, if used)

E = Value above quantitation range

H = Analyte was prepared and/or analyzed outside of the analytical method holding time

= Matrix Interference

R = RPD outside accepted recovery limits
S = Spike recovery outside recovery limits

Surr = Surrogate
DF = Dilution Factor

#### **ANALYTE TYPES**

A,B = Target Analyte
I = Internal Standard
M = Summation Analyte

S = Surrogate

T = Tentatively Identified Compound (TIC, concentration estimated)

#### **QC SAMPLE IDENTIFICATIONS**

MBLK	=	Method Blank	ICSA	=	Interference Check Standard "A"
DUP	=	Method Duplicate	ICSAB	=	Interference Check Standard "AB"
LCS	=	Laboratory Control Sample	LCSD	=	Laboratory Control Sample Duplicate
BS	=	Method Blank Spike	BSD	=	Method Blank Spike Duplicate
MS	=	Matrix Spike	MSD	=	Matrix Spike Duplicate
ICB	=	Initial Calibration Blank	CCB	=	Continuing Calibration Blank
ICV	=	Initial Calibration Verification	CCV	=	Continuing Calibration Verification
PDS	=	Post Digestion Spike	SD	=	Serial Dilution
OPR	=	Ongoing Precision and Recovery Stand	ard		

#### **CERTIFICATIONS**

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

Illinois EPA for the analysis wastewater and solid waste in accordance with the requirements of the National Environmental Laboratory Accreditation Program [NELAP] (accreditation #100435)

Illinois Department of Public Health for the microbiological analysis of drinking water (registry #1755266)

Indiana DEM approved support laboratory for solid waste and wastewater analyses

Indiana SDH for the chemical analysis of drinking water (lab #C-45-03)

Indiana SDH for the microbiological analysis of drinking water (lab #M-45-8)

Kentucky DEP for the chemical analysis of drinking water (lab #90147)

Kentucky EPPC for the analysis of samples applicable to the Underground Storage Tank program (lab #75)

\*New York SDH for the chemical analysis of air and emissions (lab #11909)

North Carolina DENR for the environmental analysis for NPDES effluent, surface water, groundwater, and pretreatment regulations(certificate #597)

Tennessee DEC for the chemical analysis of drinking water (lab #04017)

Wisconsin DNR for the chemical analysis of wastewater and solid waste (lab #998036710)



#### **COOLER INSPECTION**

Client Name: I ATA-K	emron Remediation LLC - /	Albuquerque, NM	Date/Time		2010 10:00
Work Order Number:	1010637	abaqao.qao, ran	Received by		
Checklist completed by:		Dave Devent	Reviewed b	, , ,	DDG
Checklist completed by.	9/17/2010 10:19:00AM	Dave Bryant		y. <u>9/21/2010</u>	DDG
		Carrier Name: F	edEx		
	Cooler ID: Default Cooler		Container	/Temp Blank Tempe	rature: 4.00°C
After-Hour Arrival?			Yes	No 🔽	
Shipping container/co	oler in good condition?		Yes 🗸	No	Not Present
Custody seals intact o	n shipping container/cooler?	<b>?</b>	Yes	No 🔲	Not Present
Custody seals intact of	n sample containers?		Yes	No	Not Present ✓
COC present?			Yes ✓	No	
	nt client identification?		Yes ✓	No	
	nt sample collector informati	on?	Yes ✓	No	
COC included a samp			Yes ✓	No	
COC agrees with sam	•		Yes 🗸	No	
COC identified the app			Yes 🗸	No	
COC included date of			Yes 🗸	No L	
COC included time of	collection? propriate number of containe	oro?	Yes ✓	No No	
Samples in proper cor	•	515 !	Yes ✓ Yes ✓	No No	
Sample containers int			Yes $\checkmark$	No	
Sufficient sample volu			Yes $\checkmark$	No H	
All samples received v			Yes $\checkmark$	No H	
•	served, are the preservative	s identified?	Yes $\checkmark$	No No	
COC included the req		0 140.1111041	Yes 🗸	No No	
			100	1,0	
	If No, adjuste	d by?			
COC signed when reli	nquished and received?		Yes 🗸	No 🗌	
Samples received on	ice?		Yes 🗸	No	
Samples properly pres	served?		Yes ✓	No	
Voa vials for aqueous	samples have zero headspa	ace?	Yes	No No	o VOA vials submitted
Cooler Comments:					
	TION (excluding After-Hour l	• / -	LIENT NOTIFICA	ATION.	
	Client Sample ID	Comments			
	BH1				
1010627 02	0110	1			



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

GC Semivolatiles - Quality Control

Work Order: 1010637

Project: Bautsch - Gray Mine Site

Batch: B006277 Prep: SW846 3550

Polychlorinated Biphenyl	Is
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Sample ID:	Blank (B006277-BLK1)		N	/lethod:	SW-846	8082		Prepped:		1/2010 (	
Source:		Daguit	l imait	l leite	Lavial	Desuit		Analyzed:		1/2010 1	
Analyte Aroclor 1016		Result	Limit 33	Units µg/Kg wet	Level	Result	%REC	Limits	RPD	Limit	Qual
Aroclor 1221		ND ND									
Aroclor 1232		ND ND	33 33	μg/Kg wet μg/Kg wet							
Aroclor 1232 Aroclor 1242		ND	33								
Aroclor 1242 Aroclor 1248		ND	33	μg/Kg wet μg/Kg wet							
Aroclor 1254		ND	33	μg/Kg wet							
Aroclor 1260		ND	33	μg/Kg wet							
Aroclor 1260 Aroclor 1262		ND	33	μg/Kg wet							
Aroclor 1268		ND	33	μg/Kg wet							
Total PCB's		ND	33	μg/Kg wet							
Surrogate: Deca	chlorohinhenyl	7.3	00	μg/Kg wet	6.667		110	38-128			
Surrogate: Tetra	, ,	6.0		μg/Kg wet	6.667		90.0	40-130			
	•										
Sample ID:	LCS (B006277-BS1)		N	/lethod:	SW-846	8082		Prepped:		1/2010 (	
Source:								Analyzed:		1/2010 1	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Aroclor 1016		178	33	μg/Kg wet	166.7		107	30.2-145		30	
Aroclor 1260		177	33	μg/Kg wet	166.7		106	40.1-138		30	
Surrogate: Deca	• •	7.3		μg/Kg wet	6.667		110	38-128			
Surrogate: Tetra	chloro-m-xylene	6.3		μg/Kg wet	6.667		95.0	40-130			
Sample ID:	Matrix Spike (B006277-I	MS1)	N	/lethod:	SW-846	8082		Prepped:	09/21	1/2010 (	06:07
Source:	1010571-08							Analyzed:	09/21	1/2010 1	13:01
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Aroclor 1016		542	180	μg/Kg dry	897.7	ND	60.4	27.2-130		40	
Aroclor 1260		451	180	μg/Kg dry	897.7	ND	50.3	23.8-131		40	
Surrogate: Deca	chlorobiphenyl	20		μg/Kg dry	35.91		55.0	38-128			
Surrogate: Tetra	chloro-m-xylene	14		μg/Kg dry	35.91		40.0	40-130			
Sample ID:	Matrix Spike Dup (B006)	277-MSD1)	N	/lethod:	SW-846	8082		Prepped:	09/21	1/2010 (	06:07
Source:	1010571-08	- ,	_					Analyzed:		1/2010 1	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Aroclor 1016		548	180	μg/Kg dry	897.4	ND	61.1	27.2-130	1.09	40	
Aroclor 1260		497	180	μg/Kg dry	897.4	ND	55.4	23.8-131	9.58	40	
Surrogate: Deca	chlorobiphenyl	20		μg/Kg dry	35.90		55.0	38-128			
=	chloro-m-xylene	14		μg/Kg dry	35.90		40.0	40-130			s



Client: LATA-Kemron Remediation LLC - Albuquerque, NM GCMS Semivolatiles - Quality Control

Work Order: 1010637

Project: Bautsch - Gray Mine Site

**Batch:** B006388 **Prep:** SW846 3550A



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**GCMS Semivolatiles - Quality Control** 

Work Order: 1010637

Project: Bautsch - Gray Mine Site

**Batch:** B006388 **Prep:** SW846 3550A

#### **Semivolatile Organic Compounds**

Sample ID: Blank (B006388-BLK1) Source:		N	/lethod:	SW-846	8270C		Prepped: Analyzed:		3/2010 ( 3/2010 ·	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,2,4-Trichlorobenzene	ND	330	μg/Kg wet							
1,2-Dichlorobenzene	ND	330	μg/Kg wet							
1,2-Diphenyl-hydrazine	ND	330	μg/Kg wet							
1,3-Dichlorobenzene	ND	330	μg/Kg wet							
1,4-Dichlorobenzene	ND	330	μg/Kg wet							
2,2'-oxybis(1-chloropropane)	ND	330	μg/Kg wet							
2,4,5-Trichlorophenol	ND	330	μg/Kg wet							
2,4,6-Trichlorophenol	ND	330	μg/Kg wet							
2,4-Dichlorophenol	ND	330	μg/Kg wet							
2,4-Dimethylphenol	ND	330	μg/Kg wet							
2,4-Dinitrophenol	ND	1600	μg/Kg wet							
2,4-Dinitrotoluene	ND	330	μg/Kg wet							
2,6-Dichlorophenol	ND	330	μg/Kg wet							
2,6-Dinitrotoluene	ND	330	μg/Kg wet							
2-Chloronaphthalene	ND	330	μg/Kg wet							
2-Chlorophenol	ND	330	μg/Kg wet							
2-Methyl-4,6-dinitrophenol	ND	1600	μg/Kg wet							
2-Methylnaphthalene	ND	330	μg/Kg wet							
2-Methylphenol	ND	330	μg/Kg wet							
2-Nitroaniline	ND	1600	μg/Kg wet							
2-Nitrophenol	ND	330	μg/Kg wet							
3,3'-Dichlorobenzidine	ND	1600	μg/Kg wet							
3,4-Benzofluoranthene	ND	330	μg/Kg wet							
3/4-Methylphenol	ND	330	μg/Kg wet							
3-Nitroaniline	ND	330	μg/Kg wet							
4,6-Dinitro-2-methylphenol	ND	1600	μg/Kg wet							
4,6-Dinitro-o-cresol	ND	1600	μg/Kg wet							
4-Bromophenyl phenyl ether	ND	330	μg/Kg wet							
4-Chloro-3-methylphenol	ND	660	μg/Kg wet							
4-Chloroaniline	ND	330	μg/Kg wet							
4-Chlorophenyl phenyl ether	ND	330	μg/Kg wet							
4-Nitroaniline	ND	1600	μg/Kg wet							
4-Nitrophenol	ND	1600	μg/Kg wet							
Acenaphthene	ND	330	μg/Kg wet							
Acenaphthylene	ND	330	μg/Kg wet							
Acetophenone	ND	330	μg/Kg wet							
Aniline	ND	330	μg/Kg wet							
A 4h										
Anthracene	ND	330	μg/Kg wet							



Client: LATA-Kemron Remediation LLC - Albuquerque, NM GCMS Semivolatiles - Quality Control

Work Order: 1010637

Project: Bautsch - Gray Mine Site

**Batch:** B006388 **Prep:** SW846 3550A

Sample ID: Blank (B006388-BLK1) Source:		N	lethod:	SW-846	8270C		Prepped: Analyzed:		/2010 0 /2010 1	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Benzo[a]anthracene	ND	330	μg/Kg wet							
Benzo[a]pyrene	ND	330	μg/Kg wet							
Benzo[b]fluoranthene	ND	330	μg/Kg wet							
Benzo[g,h,i]perylene	ND	330	μg/Kg wet							
Benzo[k]fluoranthene	ND	330	μg/Kg wet							
Benzoic acid	ND	1600	μg/Kg wet							
Benzyl alcohol	ND	660	μg/Kg wet							
beta-Chloronaphthalene	ND	330	μg/Kg wet							
Bis(2-chloroethoxy)methane	ND	330	μg/Kg wet							
Bis(2-chloroethyl)ether	ND	330	μg/Kg wet							
Bis(2-ethylhexyl)phthalate	ND	330	μg/Kg wet							
Butyl benzyl phthalate	ND	330	μg/Kg wet							
Carbazole	ND	330	μg/Kg wet							
Chrysene	ND	330	μg/Kg wet							
Di(2-ethylhexyl) phthalate	ND	330	μg/Kg wet							
Dibenz[a,h]anthracene	ND	330	μg/Kg wet							
Dibenzofuran	ND	330	μg/Kg wet							
Diethyl phthalate	ND	330	μg/Kg wet							
Dimethyl phthalate	ND	330	μg/Kg wet							
Di-n-butyl phthalate	ND	330	μg/Kg wet							
Di-n-octyl phthalate	ND	330	μg/Kg wet							
Fluoranthene	ND	330	μg/Kg wet							
Fluorene	ND	330	μg/Kg wet							
Hexachlorobenzene	ND	330	μg/Kg wet							
Hexachlorobutadiene	ND	330	μg/Kg wet							
Hexachlorocyclopentadiene	ND	330	μg/Kg wet							
Hexachloroethane	ND	330	μg/Kg wet							
Indeno[1,2,3cd]pyrene	ND	330	μg/Kg wet							
Isophorone	ND	330	μg/Kg wet							
m-Dichlorobenzene	ND	330	μg/Kg wet							
Naphthalene	ND	330	μg/Kg wet							
Nitrobenzene	ND	330	μg/Kg wet							
N-Nitrosodimethylamine	ND	330	μg/Kg wet							
N-Nitrosodi-n-propylamine	ND	330	μg/Kg wet							
N-Nitrosodiphenylamine	ND	330	μg/Kg wet							
o-Chlorophenol	ND	330	μg/Kg wet							
p-Chloroaniline	ND	660	μg/Kg wet							
p-Chloro-m-cresol	ND	660	μg/Kg wet							
p-Cresol	ND	330	μg/Kg wet							
Pentachlorophenol	ND	1600	μg/Kg wet							
Phenanthrene	ND	330	μg/Kg wet							



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

GCMS Semivolatiles - Quality Control

Work Order: 1010637

1,4-Dichlorobenzene

Project: Bautsch - Gray Mine Site

Batch: B006388 Prep: SW846 3550A

Sample ID: Blank (B006388-BLK1) Source:		N	flethod:	SW-846	8270C		Prepped: Analyzed:		3/2010 3/2010	
Analyte	Result	Limit	Units	Level	Result	%REC	-	RPD	Limit	Qual
Phenol	ND	330	μg/Kg wet							
Pyrene	ND	330	μg/Kg wet							
Pyridine	ND	330	μg/Kg wet							
Total Cresol	ND	330	μg/Kg wet							
Surrogate: 2,4,6-Tribromophenol	88		ug/mL	100.0		87.9	13.9-145			
Surrogate: 2-Fluorobiphenyl	40		ug/mL	50.00		80.5	28.1-110			
Surrogate: 2-Fluorophenol	82		ug/mL	100.0		81.8	24.5-110			
Surrogate: Nitrobenzene-d5	42		ug/mL	50.00		83.0	33.6-110			
Surrogate: Phenol-d5	84		ug/mL	100.0		83.6	29.6-110			
Surrogate: Terphenyl-d14	50		ug/mL	50.00		100	35.8-121			
Sample ID: Blank (B006388-BLK2) Source:		N	flethod:	SW-846	8270C		Prepped: Analyzed:		3/2010 3/2010	
Analyte	Result	Limit	Units	Level	Result	%REC	-	RPD	Limit	Qual
Acenaphthene	ND	330	μg/Kg wet			,,,,,				
Acenaphthylene	ND	330	μg/Kg wet							
Anthracene	ND	330	μg/Kg wet							
Benzo[a]anthracene	ND	330	μg/Kg wet							
Benzo[a]pyrene	ND	330	μg/Kg wet							
Benzo[b]fluoranthene	ND	330	μg/Kg wet							
Benzo[g,h,i]perylene	ND	330	μg/Kg wet							
Benzo[k]fluoranthene	ND	330	μg/Kg wet							
Chrysene	ND	330	μg/Kg wet							
Dibenz[a,h]anthracene	ND	330	μg/Kg wet							
Fluoranthene	ND	330	μg/Kg wet							
Fluorene	ND	330	μg/Kg wet							
Indeno[1,2,3cd]pyrene	ND	330	μg/Kg wet							
Naphthalene	ND	330	μg/Kg wet							
Phenanthrene	ND	330	μg/Kg wet							
Pyrene	ND	330	μg/Kg wet							
Surrogate: 2,4,6-Tribromophenol	82		ug/mL	100.0		82.4	13.9-145			
Surrogate: 2-Fluorobiphenyl	41		ug/mL	50.00		81.1	28.1-110			
Surrogate: 2-Fluorophenol	79		ug/mL	100.0		79.1	24.5-110			
Surrogate: Nitrobenzene-d5	39		ug/mL	50.00		77.7	33.6-110			
Surrogate: Phenol-d5	82		ug/mL	100.0		81.6	29.6-110			
Surrogate: Terphenyl-d14	43		ug/mL	50.00		86.2	35.8-121			
Sample ID: LCS (B006388-BS1) Source:		N	flethod:	SW-846	8270C		Prepped: Analyzed:		3/2010 3/2010	
Analyte	Result	Limit	Units	Level	Result	%REC		RPD	Limit	
1,2,4-Trichlorobenzene	2210	330	μg/Kg wet	3333		66.4	35.9-110		30	

 $330 \mu g/Kg wet$ 

1980

30

20-124



SW-846 8270C

## **Analytical QC Summary**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM **GCMS Semivolatiles - Quality Control** 

Prepped:

Analyzed:

09/23/2010 07:21

09/23/2010 10:49

Work Order: 1010637

Sample ID:

Acenaphthene

Source:

Bautsch - Gray Mine Site Project:

B006388 Prep: SW846 3550A Batch: LCS (B006388-BS1)

						<b>,</b>		
Result	Limit	Units	Level	Result	%REC	Limits	RPD Limit	Qual
2160	330	μg/Kg wet	3333		64.7	10-113	30	
2110	330	μg/Kg wet	3333		63.2	42.6-110	30	
2300	330	μg/Kg wet	3333		69.0	19-111	30	
2230	330	μg/Kg wet	3333		67.0	36.1-110	30	
2720	1600	μg/Kg wet	3333		81.7	50-150	30	
2420	660	μg/Kg wet	3333		72.5	40.6-119	30	
2540	330	μg/Kg wet	3333		76.2	24-113	30	
2250	1600	μg/Kg wet	3333		67.5	39.1-110	30	
2230	330	μg/Kg wet	3333		66.8	42.1-110	30	
2520	330	μg/Kg wet	3333		75.5	50-150	30	
2370	330	μg/Kg wet	3333		71.1	28-144	30	
2430	330	μg/Kg wet	3333		73.0	22-128	30	
2450	330	μg/Kg wet	3333		73.4	26-175	30	
2530	330	μg/Kg wet	3333		76.0	16-119	30	
2370	330	μg/Kg wet	3333		71.0	15-130	30	
2700	330	μg/Kg wet	3333		81.1	50-150	30	
2090	330	μg/Kg wet	3333		62.7	38.1-110	30	
1750	1600	μg/Kg wet	3333		52.6	22.1-110	30	
1790	330	μg/Kg wet	3333		53.7	38.9-110	30	
2730	330	μg/Kg wet	3333		82.0	44.3-116	30	
76		ug/mL	100.0		76.5	13.9-145		
39		ug/mL	50.00		77.7	28.1-110		
74		ug/mL	100.0		74.3	24.5-110		
36		ug/mL	50.00		71.9	33.6-110		
68		ug/mL	100.0		68.1	29.6-110		
47		ug/mL	50.00		93.4	35.8-121		
06388-MS1)	N	/lethod:	SW-846	8270C		Prepped:	09/23/2010	07:21
,								
Result	Limit	Units	Level	Result		-		
2920	380		3807	ND	76.6	33.9-110	30	
2750	380		3807	ND	72.3	10-134	30	
2620	380	μg/Kg dry	3807	ND	68.8	10-123	30	
2620 3160	380 380	μg/Kg dry μg/Kg dry	3807 3807	ND ND	68.8 83.1	10-123 49.9-110	30 30	
3160	380	μg/Kg dry μg/Kg dry	3807	ND	83.1	49.9-110	30	
3160 2780	380 380	μg/Kg dry	3807 3807	ND ND	83.1 72.9	49.9-110 10-121	30 30	
3160 2780 2880	380 380 380	µg/Kg dry µg/Kg dry µg/Kg dry µg/Kg dry	3807 3807 3807	ND ND ND	83.1 72.9 75.7	49.9-110 10-121 35.7-110	30 30 30	
3160 2780 2880 3080	380 380 380 1800	μg/Kg dry μg/Kg dry μg/Kg dry	3807 3807 3807 3807	ND ND ND ND	83.1 72.9 75.7 80.8	49.9-110 10-121 35.7-110 40-160	30 30 30 30	
	2160 2110 2300 2230 2720 2420 2540 2250 2230 2520 2370 2430 2450 2530 2370 2700 2090 1750 1790 2730 76 39 74 36 68 47  06388-MS1)  Result 2920 2750	2160 330 2110 330 2110 330 2300 330 2230 330 2720 1600 2420 660 2540 330 2250 1600 2230 330 2520 330 2520 330 2430 330 2450 330 2450 330 2450 330 2700 300 2700 300 2	2160       330       μg/Kg wet         2110       330       μg/Kg wet         2300       330       μg/Kg wet         2230       330       μg/Kg wet         2220       1600       μg/Kg wet         2420       660       μg/Kg wet         2540       330       μg/Kg wet         2250       1600       μg/Kg wet         2230       330       μg/Kg wet         2370       330       μg/Kg wet         2430       330       μg/Kg wet         2430       330       μg/Kg wet         2450       330       μg/Kg wet         2370       330       μg/Kg wet         2370       330       μg/Kg wet         2370       330       μg/Kg wet         2370       330       μg/Kg wet         2700       330       μg/Kg wet         2700       330       μg/Kg wet         1750       1600       μg/Kg wet         2730       330       μg/Kg wet         2730       330       μg/Kg wet         39       μg/ML       μg/mL         47       μg/mL       μg/mL         47       μg/M	2160 330 μg/Kg wet 3333 2110 330 μg/Kg wet 3333 2300 330 μg/Kg wet 3333 2230 330 μg/Kg wet 3333 22230 330 μg/Kg wet 3333 2720 1600 μg/Kg wet 3333 2420 660 μg/Kg wet 3333 2540 330 μg/Kg wet 3333 2550 1600 μg/Kg wet 3333 2250 1600 μg/Kg wet 3333 2230 330 μg/Kg wet 3333 2230 330 μg/Kg wet 3333 2230 330 μg/Kg wet 3333 2430 330 μg/Kg wet 3333 24430 330 μg/Kg wet 3333 2450 330 μg/Kg wet 3333 2450 330 μg/Kg wet 3333 2450 330 μg/Kg wet 3333 2530 330 μg/Kg wet 3333 2700 330 μg/Kg wet 3333	2160 330 μg/Kg wet 3333 2110 330 μg/Kg wet 3333 2330 μg/Kg wet 3333 2230 330 μg/Kg wet 3333 2230 1600 μg/Kg wet 3333 2420 660 μg/Kg wet 3333 2540 330 μg/Kg wet 3333 2550 1600 μg/Kg wet 3333 2250 330 μg/Kg wet 3333 2230 330 μg/Kg wet 3333 233 2520 330 μg/Kg wet 3333 2430 330 μg/Kg wet 3333 2450 330 μg/Kg wet 3333 2450 330 μg/Kg wet 3333 2530 μg/Kg wet 3333 2700 330 μg/Kg wet 3333 2700 μg/Kg wet 3333 2700 μg/Kg wet 3333 2700 μg/Kg wet 3333 2090 μg/Kg dg/Kg dg	2160 330 μg/Kg wet 3333 64.7 2110 330 μg/Kg wet 3333 63.2 2300 330 μg/Kg wet 3333 69.0 2230 330 μg/Kg wet 3333 67.0 2720 1600 μg/Kg wet 3333 72.5 2540 330 μg/Kg wet 3333 72.5 2540 330 μg/Kg wet 3333 76.2 2250 1600 μg/Kg wet 3333 76.2 2250 1600 μg/Kg wet 3333 76.5 2230 330 μg/Kg wet 3333 75.5 2370 330 μg/Kg wet 3333 75.5 2370 330 μg/Kg wet 3333 75.5 2370 330 μg/Kg wet 3333 71.1 2430 330 μg/Kg wet 3333 73.0 2450 330 μg/Kg wet 3333 73.0 2450 330 μg/Kg wet 3333 73.4 2530 330 μg/Kg wet 3333 76.0 2370 330 μg/Kg wet 3333 76.0 2700 330 μg/Kg wet 3333 76.0 2700 330 μg/Kg wet 3333 76.0 2700 330 μg/Kg wet 3333 81.1 2090 330 μg/Kg wet 3333 82.0 267 μg/Mg wet 3333 82.0 268 μg/Mg wet 3333 82.0 276 μg/ML 100.0 76.5 2750 μg/ML 50.00 77.7 274 μg/mL 100.0 76.5 2750 380 μg/Kg dry 3807 ND 76.6 2750 380 μg/Kg dry 3807 ND 76.6	2160 330 µg/Kg wet 3333 64.7 10-113 2110 330 µg/Kg wet 3333 63.2 42.6-110 2300 330 µg/Kg wet 3333 69.0 19-111 2230 330 µg/Kg wet 3333 67.0 36.1-110 2720 1600 µg/Kg wet 3333 72.5 40.6-119 2420 660 µg/Kg wet 3333 72.5 40.6-119 2540 330 µg/Kg wet 3333 67.5 39.1-110 2550 1600 µg/Kg wet 3333 66.8 42.1-110 2230 330 µg/Kg wet 3333 76.2 24-113 2250 1600 µg/Kg wet 3333 76.5 50-150 2420 330 µg/Kg wet 3333 76.5 50-150 2430 330 µg/Kg wet 3333 75.5 50-150 2430 330 µg/Kg wet 3333 75.5 50-150 2370 330 µg/Kg wet 3333 73.0 22-128 2450 330 µg/Kg wet 3333 73.0 22-128 2450 330 µg/Kg wet 3333 73.0 12-128 2450 330 µg/Kg wet 3333 73.0 12-138 2450 330 µg/Kg wet 3333 73.0 22-128 2550 330 µg/Kg wet 3333 74.0 15-130 260  330 µg/Kg wet 3333 77.0 15-130 260  330 µg/Kg wet 3333 77.0 15-130 2770 330 µg/Kg wet 3333 77.0 15-130 2770 330 µg/Kg wet 3333 77.0 15-130 2770 330 µg/Kg wet 3333 77.0 15-130 2770 330 µg/Kg wet 3333 77.0 15-130 2770 330 µg/Kg wet 3333 77.0 15-130 2770 330 µg/Kg wet 3333 77.0 15-130 2770 330 µg/Kg wet 3333 77.0 15-130 2770 330 µg/Kg wet 3333 77.0 15-130 2770 330 µg/Kg wet 3333 77.0 15-130 2770 330 µg/Kg wet 3333 77.0 15-130 2770 330 µg/Kg wet 3333 77.0 15-130 2770 330 µg/Kg wet 3333 77.0 15-130 2770 330 µg/Kg wet 3333 77.0 15-130 2770 330 µg/Kg wet 3333 77.0 15-130 2770 330 µg/Kg wet 3333 77.0 15-130 2770 330 µg/Kg	2160 330 μg/Kg wet 3333 64.7 10-113 30 2110 330 μg/Kg wet 3333 63.2 42 6-110 30 2300 330 μg/Kg wet 3333 69.0 19-111 30 2230 330 μg/Kg wet 3333 67.0 36.1-110 30 22720 1600 μg/Kg wet 3333 81.7 50-150 30 2420 660 μg/Kg wet 3333 72.5 40.6-119 30 2540 330 μg/Kg wet 3333 72.5 40.6-119 30 2550 1600 μg/Kg wet 3333 76.2 24-113 30 2550 1600 μg/Kg wet 3333 76.2 24-113 30 2550 330 μg/Kg wet 3333 76.5 50-150 30 2230 330 μg/Kg wet 3333 75.5 50-150 30 22370 330 μg/Kg wet 3333 71.1 28-144 30 2430 330 μg/Kg wet 3333 71.1 28-144 30 2430 330 μg/Kg wet 3333 73.0 22-128 30 2450 330 μg/Kg wet 3333 73.0 22-128 30 2450 330 μg/Kg wet 3333 71.0 15-130 30 2530 330 μg/Kg wet 3333 76.0 16-119 30 2530 330 μg/Kg wet 3333 71.0 15-130 30 2530 330 μg/Kg wet 3333 71.0 15-130 30 2530 330 μg/Kg wet 3333 71.0 15-130 30 2530 330 μg/Kg wet 3333 71.0 15-130 30 2530 330 μg/Kg wet 3333 71.0 15-130 30 2530 330 μg/Kg wet 3333 81.1 50-150 30 2530 330 μg/Kg wet 3333 82.0 44.3-116 30 266 μg/mL 100.0 76.5 13.9-145 μg/mL 50.00 77.7 28.1-110 36 μg/mL 50.00 77.7 28.1-110 37 μg/mL 50.00 77.7 28.1-110 38 μg/mL 50.00 77.7 28.1-110 39 μg/mL 50.00 77.7 28.1-110 36 μg/mL 50.00 77.7 28.1-110 37 μg/mL 50.00 77.7 28.1-110 38 μg/mL 50.00 77.7 28.1-110 39 μg/mL 50.00 77.7 28.1-110 30 306388-MS1)  38 μg/Kg dry 3807 ND 76.6 33.9-110 30 99/23/2010 30 μg/Kg dry 3807 ND 76.6 33.9-110 30 99/23/2010

Method:

μg/Kg dry

3807

ND

78.8

39.8-110

380

3000

30



SW-846 8270C

Result

%REC

Level

#### **Analytical QC Summary**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Result

2390

2520

380

1800

**GCMS Semivolatiles - Quality Control** 

**RPD** 

Prepped:

Analyzed:

Limits

09/23/2010 07:21

09/23/2010 14:48

Limit Qual

Work Order: 1010637

N-Nitrosodi-n-propylamine

Pentachlorophenol

Sample ID:

Source:

Analyte

Project: Bautsch - Gray Mine Site

1010753-01

**Batch:** B006388 **Prep:** SW846 3550A

Matrix Spike (B006388-MS1)

Ponzola h ilnondono										
Benzo[g,h,i]perylene	2400	380	μg/Kg dry	3807	ND	63.1	40-160		30	
Benzo[k]fluoranthene	2110	380	μg/Kg dry	3807	ND	55.5	18-154		30	
Bis(2-ethylhexyl)phthalate	3540	380	μg/Kg dry	3807	ND	92.9	12-138		30	
Dibenz[a,h]anthracene	2540	380	μg/Kg dry	3807	ND	66.7	16-185		30	
Diethyl phthalate	3160	380	μg/Kg dry	3807	ND	83.0	10-129		30	
Dimethyl phthalate	2940	380	μg/Kg dry	3807	ND	77.4	10-140		30	
Indeno[1,2,3cd]pyrene	2620	380	μg/Kg dry	3807	ND	68.9	40-160		30	
N-Nitrosodi-n-propylamine	3110	380	μg/Kg dry	3807	ND	81.6	37.4-110		30	
Pentachlorophenol	2490	1800	μg/Kg dry	3807	ND	65.5	10.6-110		30	
Phenol	2680	380	μg/Kg dry	3807	ND	70.4	43.3-110		30	
Pyrene	2950	380	μg/Kg dry	3807	ND	77.6	37.6-113		30	
Surrogate: 2,4,6-Tribromophenol	96		ug/mL	100.0		96.0	13.9-145			
Surrogate: 2-Fluorobiphenyl	43		ug/mL	50.00		86.5	28.1-110			
Surrogate: 2-Fluorophenol	86		ug/mL	100.0		85.7	24.5-110			
Surrogate: Nitrobenzene-d5	40		ug/mL	50.00		79.9	33.6-110			
Surrogate: Phenol-d5	82		ug/mL	100.0		82.1	29.6-110			
Surrogate: Terphenyl-d14	48		ug/mL	50.00		96.0	35.8-121			
Sample ID: Matrix Spike Dup (B	006388-MSD1)	N	Method:	SW-846	8270C		Prepped:		3/2010 (	
<b>Source</b> : 1010753-01						4	Analyzed:	09/2	3/2010 1	15:13
Analyte 1010753-01	Result	Limit	Units	Level	Result	%REC	Analyzed: Limits	RPD	3/2010 <sup>2</sup> Limit	15:13 Qual
Analyte	Result 2560	Limit 380	Units µg/Kg dry	Level 3807	Result ND					
Analyte 1,2,4-Trichlorobenzene						%REC	Limits	RPD	Limit	
Analyte 1,2,4-Trichlorobenzene 1,4-Dichlorobenzene	2560	380	μg/Kg dry	3807	ND	%REC 67.2	Limits 33.9-110	RPD 13.0	Limit 30	
Analyte	2560 2150	380 380	μg/Kg dry μg/Kg dry	3807 3807	ND ND	%REC 67.2 56.4	Limits 33.9-110 10-134	RPD 13.0 24.7	Limit 30 30	
Analyte 1,2,4-Trichlorobenzene 1,4-Dichlorobenzene 2,2'-oxybis(1-chloropropane) 2,4-Dinitrotoluene	2560 2150 2350	380 380 380	µg/Kg dry µg/Kg dry µg/Kg dry	3807 3807 3807	ND ND ND	%REC 67.2 56.4 61.7	Limits 33.9-110 10-134 10-123	RPD 13.0 24.7 10.8	30 30 30	
Analyte 1,2,4-Trichlorobenzene 1,4-Dichlorobenzene 2,2'-oxybis(1-chloropropane) 2,4-Dinitrotoluene 2-Chloronaphthalene	2560 2150 2350 2770	380 380 380 380	µg/Kg dry µg/Kg dry µg/Kg dry µg/Kg dry	3807 3807 3807 3807	ND ND ND ND	%REC 67.2 56.4 61.7 72.8	Limits 33.9-110 10-134 10-123 49.9-110	RPD 13.0 24.7 10.8 13.2	30 30 30 30 30	
Analyte 1,2,4-Trichlorobenzene 1,4-Dichlorobenzene 2,2'-oxybis(1-chloropropane) 2,4-Dinitrotoluene 2-Chloronaphthalene 2-Chlorophenol	2560 2150 2350 2770 2650	380 380 380 380 380	μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry	3807 3807 3807 3807 3807	ND ND ND ND	%REC 67.2 56.4 61.7 72.8 69.7	Limits 33.9-110 10-134 10-123 49.9-110 10-121	RPD 13.0 24.7 10.8 13.2 4.53	30 30 30 30 30 30	
Analyte 1,2,4-Trichlorobenzene 1,4-Dichlorobenzene 2,2'-oxybis(1-chloropropane) 2,4-Dinitrotoluene 2-Chloronaphthalene 2-Chlorophenol 3,3'-Dichlorobenzidine	2560 2150 2350 2770 2650 2600	380 380 380 380 380 380	μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry	3807 3807 3807 3807 3807 3807	ND ND ND ND ND	%REC 67.2 56.4 61.7 72.8 69.7 68.3	Limits 33.9-110 10-134 10-123 49.9-110 10-121 35.7-110	RPD 13.0 24.7 10.8 13.2 4.53 10.2	20 30 30 30 30 30 30 30 30 30 30	
Analyte 1,2,4-Trichlorobenzene 1,4-Dichlorobenzene 2,2'-oxybis(1-chloropropane) 2,4-Dinitrotoluene 2-Chloronaphthalene 2-Chlorophenol 3,3'-Dichlorobenzidine 4-Chloro-3-methylphenol	2560 2150 2350 2770 2650 2600 3000	380 380 380 380 380 380 380	μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry	3807 3807 3807 3807 3807 3807 3807	ND ND ND ND ND ND ND ND	%REC 67.2 56.4 61.7 72.8 69.7 68.3 78.8	Limits 33.9-110 10-134 10-123 49.9-110 10-121 35.7-110 40-160	RPD 13.0 24.7 10.8 13.2 4.53 10.2 2.52	Limit 30 30 30 30 30 30 30 30 30	
Analyte  1,2,4-Trichlorobenzene 1,4-Dichlorobenzene 2,2'-oxybis(1-chloropropane) 2,4-Dinitrotoluene 2-Chloronaphthalene 2-Chlorophenol 3,3'-Dichlorobenzidine 4-Chloro-3-methylphenol 4-Chlorophenyl phenyl ether	2560 2150 2350 2770 2650 2600 3000 2940	380 380 380 380 380 380 1800 750	μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry	3807 3807 3807 3807 3807 3807 3807 3807	ND ND ND ND ND ND ND ND ND ND	%REC 67.2 56.4 61.7 72.8 69.7 68.3 78.8 77.3	Limits 33.9-110 10-134 10-123 49.9-110 10-121 35.7-110 40-160 41.5-121	RPD 13.0 24.7 10.8 13.2 4.53 10.2 2.52 11.5	Limit 30 30 30 30 30 30 30 30 30 30	
Analyte 1,2,4-Trichlorobenzene 1,4-Dichlorobenzene 2,2'-oxybis(1-chloropropane) 2,4-Dinitrotoluene 2-Chloronaphthalene 2-Chlorophenol 3,3'-Dichlorobenzidine 4-Chloro-3-methylphenol 4-Chlorophenyl phenyl ether 4-Nitrophenol	2560 2150 2350 2770 2650 2600 3000 2940 3110	380 380 380 380 380 380 1800 750 380	μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry μg/Kg dry	3807 3807 3807 3807 3807 3807 3807 3807	ND ND ND ND ND ND ND ND ND ND ND ND ND	%REC 67.2 56.4 61.7 72.8 69.7 68.3 78.8 77.3 81.6	Limits 33.9-110 10-134 10-123 49.9-110 10-121 35.7-110 40-160 41.5-121 14-123	RPD 13.0 24.7 10.8 13.2 4.53 10.2 2.52 11.5 0.781	30 30 30 30 30 30 30 30 30 30	
Analyte 1,2,4-Trichlorobenzene 1,4-Dichlorobenzene 2,2'-oxybis(1-chloropropane) 2,4-Dinitrotoluene 2-Chloronaphthalene 2-Chlorophenol 3,3'-Dichlorobenzidine 4-Chloro-3-methylphenol 4-Chlorophenol Acenaphthene	2560 2150 2350 2770 2650 2600 3000 2940 3110 2990	380 380 380 380 380 380 1800 750 380 1800	Hg/Kg dry Hg/Kg dry Hg/Kg dry Hg/Kg dry Hg/Kg dry Hg/Kg dry Hg/Kg dry Hg/Kg dry Hg/Kg dry Hg/Kg dry	3807 3807 3807 3807 3807 3807 3807 3807	ND ND ND ND ND ND ND ND ND ND ND ND ND N	%REC 67.2 56.4 61.7 72.8 69.7 68.3 78.8 77.3 81.6 78.7	Limits 33.9-110 10-134 10-123 49.9-110 10-121 35.7-110 40-160 41.5-121 14-123 32.1-121	RPD 13.0 24.7 10.8 13.2 4.53 10.2 2.52 11.5 0.781 8.11	30 30 30 30 30 30 30 30 30 30 30	
Analyte  1,2,4-Trichlorobenzene  1,4-Dichlorobenzene  2,2'-oxybis(1-chloropropane)  2,4-Dinitrotoluene  2-Chloronaphthalene  2-Chlorophenol  3,3'-Dichlorobenzidine  4-Chloro-3-methylphenol  4-Chlorophenol  4-Chlorophenol  Acenaphthene  Benzo[g,h,i]perylene	2560 2150 2350 2770 2650 2600 3000 2940 3110 2990 2670	380 380 380 380 380 380 1800 750 380 1800 380	Hg/Kg dry Hg/Kg dry Hg/Kg dry Hg/Kg dry Hg/Kg dry Hg/Kg dry Hg/Kg dry Hg/Kg dry Hg/Kg dry Hg/Kg dry Hg/Kg dry Hg/Kg dry	3807 3807 3807 3807 3807 3807 3807 3807	ND ND ND ND ND ND ND ND ND ND ND ND ND N	%REC 67.2 56.4 61.7 72.8 69.7 68.3 78.8 77.3 81.6 78.7 70.2	Limits 33.9-110 10-134 10-123 49.9-110 10-121 35.7-110 40-160 41.5-121 14-123 32.1-121 39.8-110	RPD 13.0 24.7 10.8 13.2 4.53 10.2 2.52 11.5 0.781 8.11 11.6	Limit  30  30  30  30  30  30  30  30  30  3	
Analyte  1,2,4-Trichlorobenzene 1,4-Dichlorobenzene 2,2'-oxybis(1-chloropropane) 2,4-Dinitrotoluene 2-Chloronaphthalene 2-Chlorophenol 3,3'-Dichlorobenzidine 4-Chloro-3-methylphenol 4-Chlorophenyl phenyl ether 4-Nitrophenol Acenaphthene Benzo[g,h,i]perylene Benzo[k]fluoranthene	2560 2150 2350 2770 2650 2600 3000 2940 3110 2990 2670 2320	380 380 380 380 380 380 1800 750 380 1800 380	μg/Kg dry μg/Kg dry	3807 3807 3807 3807 3807 3807 3807 3807	ND ND ND ND ND ND ND ND ND ND ND ND ND N	%REC 67.2 56.4 61.7 72.8 69.7 68.3 78.8 77.3 81.6 78.7 70.2 60.9	Limits 33.9-110 10-134 10-123 49.9-110 10-121 35.7-110 40-160 41.5-121 14-123 32.1-121 39.8-110 40-160	RPD 13.0 24.7 10.8 13.2 4.53 10.2 2.52 11.5 0.781 8.11 11.6 3.50	Limit  30  30  30  30  30  30  30  30  30  3	
Analyte  1,2,4-Trichlorobenzene  1,4-Dichlorobenzene  2,2'-oxybis(1-chloropropane)  2,4-Dinitrotoluene  2-Chloronaphthalene  2-Chlorophenol  3,3'-Dichlorobenzidine  4-Chloro-3-methylphenol  4-Chlorophenyl phenyl ether  4-Nitrophenol  Acenaphthene  Benzo[g,h,i]perylene  Benzo[k]fluoranthene  Bis(2-ethylhexyl)phthalate	2560 2150 2350 2770 2650 2600 3000 2940 3110 2990 2670 2320 2130	380 380 380 380 380 1800 750 380 1800 380 380	μg/Kg dry μg/Kg dry	3807 3807 3807 3807 3807 3807 3807 3807	ND ND ND ND ND ND ND ND ND ND ND ND ND N	%REC 67.2 56.4 61.7 72.8 69.7 68.3 78.8 77.3 81.6 78.7 70.2 60.9 55.9	Limits 33.9-110 10-134 10-123 49.9-110 10-121 35.7-110 40-160 41.5-121 14-123 32.1-121 39.8-110 40-160 18-154	RPD 13.0 24.7 10.8 13.2 4.53 10.2 2.52 11.5 0.781 8.11 11.6 3.50 0.808	Limit  30  30  30  30  30  30  30  30  30  3	
Analyte  1,2,4-Trichlorobenzene 1,4-Dichlorobenzene 2,2'-oxybis(1-chloropropane) 2,4-Dinitrotoluene 2-Chloronaphthalene 2-Chlorophenol 3,3'-Dichlorobenzidine 4-Chloro-3-methylphenol 4-Chlorophenyl phenyl ether 4-Nitrophenol Acenaphthene Benzo[g,h,i]perylene Benzo[k]fluoranthene Bis(2-ethylhexyl)phthalate Dibenz[a,h]anthracene	2560 2150 2350 2770 2650 2600 3000 2940 3110 2990 2670 2320 2130 3260	380 380 380 380 380 380 1800 750 380 1800 380 380 380	μg/Kg dry μg/Kg dry	3807 3807 3807 3807 3807 3807 3807 3807	ND ND ND ND ND ND ND ND ND ND ND ND ND N	%REC 67.2 56.4 61.7 72.8 69.7 68.3 78.8 77.3 81.6 78.7 70.2 60.9 55.9 85.6	Limits 33.9-110 10-134 10-123 49.9-110 10-121 35.7-110 40-160 41.5-121 14-123 32.1-121 39.8-110 40-160 18-154 12-138	RPD 13.0 24.7 10.8 13.2 4.53 10.2 2.52 11.5 0.781 8.11 11.6 3.50 0.808 8.13	Limit  30  30  30  30  30  30  30  30  30  3	
Analyte 1,2,4-Trichlorobenzene 1,4-Dichlorobenzene 2,2'-oxybis(1-chloropropane)	2560 2150 2350 2770 2650 2600 3000 2940 3110 2990 2670 2320 2130 3260 2490	380 380 380 380 380 380 1800 750 380 1800 380 380 380 380	μg/Kg dry μg/Kg dry	3807 3807 3807 3807 3807 3807 3807 3807	ND ND ND ND ND ND ND ND ND ND ND ND ND N	%REC 67.2 56.4 61.7 72.8 69.7 68.3 78.8 77.3 81.6 78.7 70.2 60.9 55.9 85.6 65.3	Limits  33.9-110  10-134  10-123  49.9-110  10-121  35.7-110  40-160  41.5-121  14-123  32.1-121  39.8-110  40-160  18-154  12-138  16-185	RPD 13.0 24.7 10.8 13.2 4.53 10.2 2.52 11.5 0.781 8.11 11.6 3.50 0.808 8.13 2.17	Limit  30 30 30 30 30 30 30 30 30 30 30 30 30	

Method:

Units

Limit

3807

3807

ND

ND

62.7

66.2

37.4-110

10.6-110

26.2

1.03

30

30

μg/Kg dry

μg/Kg dry



Client: LATA-Kemron Remediation LLC - Albuquerque, NM GCMS Semivolatiles - Quality Control

Work Order: 1010637

Project: Bautsch - Gray Mine Site

**Batch:** B006388 **Prep:** SW846 3550A

Sample ID: Source:	Matrix Spike Dup (B0 1010753-01	006388-MSD1)	N	lethod:	SW-846	8270C		Prepped: Analyzed:		3/2010 ( 3/2010 1	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Phenol		2160	380	μg/Kg dry	3807	ND	56.6	43.3-110	21.7	30	
Pyrene		3030	380	μg/Kg dry	3807	ND	79.6	37.6-113	2.61	30	
Surrogate: 2,4,6-	Tribromophenol	90		ug/mL	100.0		90.0	13.9-145			
Surrogate: 2-Fluo	orobiphenyl	39		ug/mL	50.00		77.7	28.1-110			
Surrogate: 2-Fluo	orophenol	70		ug/mL	100.0		69.8	24.5-110			
Surrogate: Nitrob	penzene-d5	36		ug/mL	50.00		72.9	33.6-110			
Surrogate: Pheno	ol-d5	69		ug/mL	100.0		69.3	29.6-110			
Surrogate: Terph	nenyl-d14	45		ug/mL	50.00		89.4	35.8-121			



Client: LATA-Kemron Remediation LLC - Albuquerque, NM GCMS Volatiles - Quality Control

Work Order: 1010637

Project: Bautsch - Gray Mine Site

**Batch:** B006194



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**GCMS Volatiles - Quality Control** 

Work Order: 1010637

Project: Bautsch - Gray Mine Site

**Batch:** B006194

#### Volatile Organic Compounds, 5035 prep, SB preserve

1.1.1.2.Trichioroethane	Sample ID: Blank (B006194-BLK1) Source:		N	Method:	SW-846 8260B		Prepped: Analyzed:		2010 <sup>2</sup> 2010 <sup>2</sup>	
1,1-1-Trichioroethane	Analyte	Result	Limit	Units	Level Result	%REC	C Limits	RPD	Limit	Qual
1,1,2,2-Tetrachloroethane	1,1,1,2-Tetrachloroethane	ND	10	μg/Kg wet						
1,1-2-frichloroethane	1,1,1-Trichloroethane	ND	5.0	μg/Kg wet						
1,1-Dichloroethane	1,1,2,2-Tetrachloroethane	ND	5.0	μg/Kg wet						
1,1-Dichloroethene	1,1,2-Trichloroethane	ND	5.0	μg/Kg wet						
2-Dichlororethane	1,1-Dichloroethane	ND	5.0	μg/Kg wet						
	1,1-Dichloroethene	ND	5.0	μg/Kg wet						
2-Hexanone	1,2-Dichloroethane	ND	5.0	μg/Kg wet						
2-Hexanone	1,2-Dichloropropane	ND	5.0	μg/Kg wet						
Actorion   ND   S.0	2-Butanone	ND	10	μg/Kg wet						
Acctorie         ND         50         µg/kg wet           Acctoriein         ND         100         µg/kg wet           Accylonitriile         ND         100         µg/kg wet           Benzene         ND         5.0         µg/kg wet           Bromodichloromethane         ND         5.0         µg/kg wet           Bromomethane         ND         5.0         µg/kg wet           Bromomethane         ND         10         µg/kg wet           Carbon Disuffide         ND         10         µg/kg wet           Carbon Evariachloride         ND         5.0         µg/kg wet           Chlorochane         ND         5.0         µg/kg wet           Chloroform         ND         5.0         µg/kg wet           Chloroform         ND         5.0         µg/kg wet           Chloroform         ND         5.0         µg/kg wet           Chloromethane         ND         5.0         µg/kg wet           Sis-1,2-Dichloropropene         ND         5.0         µg/kg wet           Sis-1,2-Dichloropropene         ND         5.0         µg/kg wet           Dibromochloromethane         ND         5.0         µg/kg wet           W	2-Hexanone	ND	5.0	μg/Kg wet						
ND   100	4-Methyl-2-Pentanone	ND	5.0	μg/Kg wet						
Accylonitrile ND 100 µg/Kg wet 36erzene ND 5.0 µg/Kg wet 36erzene ND 10 µg/Kg wet 36erzene ND 10 µg/Kg wet 36erzene ND 5.0	Acetone	ND	50	μg/Kg wet						
Benzene         ND         5.0         µg/Kg wet           Bromodichloromethane         ND         5.0         µg/Kg wet           Bromodichloromethane         ND         5.0         µg/Kg wet           Bromomethane         ND         10         µg/Kg wet           Bromomethane         ND         10         µg/Kg wet           Carbon Disulfide         ND         5.0         µg/Kg wet           Chlorobenzene         ND         5.0         µg/Kg wet           Chlorobethane         ND         10         µg/Kg wet           Chloroform         ND         5.0         µg/Kg wet           Dibromethane         ND         10         µg/Kg wet           Dis-1,2-Dichloropropene         ND         5.0         µg/Kg wet           Dibromochloromethane         ND         5.0         µg/Kg wet           Ethylbenzene         ND         5.0         µg/Kg wet           Dibromochloromethane         ND         5.0         µg/Kg wet           Wethyl-1-Butyl Ether         ND         5.0         µg/Kg wet           D-Xylene         ND         5.0         µg/Kg wet           Styrene         ND         5.0         µg/Kg wet           <	Acrolein	ND	100	μg/Kg wet						
Bromodichloromethane         ND         5.0         µg/Kg wet           Bromoform         ND         5.0         µg/Kg wet           Bromomethane         ND         10         µg/Kg wet           Carbon Disulfide         ND         10         µg/Kg wet           Carbon Lisulfide         ND         10         µg/Kg wet           Chlorobenzene         ND         5.0         µg/Kg wet           Chlorobenzene         ND         10         µg/Kg wet           Chloromethane         ND         10         µg/Kg wet           Chloromethane         ND         10         µg/Kg wet           Sis-1,3-Dichloropropene         ND         5.0         µg/Kg wet           Dibromochloromethane         ND         5.0         µg/Kg wet           Cibromochloromethane         ND         5.0         µg	Acrylonitrile	ND	100	μg/Kg wet						
Brownordorm         ND         5.0         µg/Kg wet           Brownomethane         ND         10         µg/Kg wet           Carbon tetrachloride         ND         5.0         µg/Kg wet           Carbon tetrachloride         ND         5.0         µg/Kg wet           Chlorobenzene         ND         5.0         µg/Kg wet           Chloroform         ND         5.0         µg/Kg wet           Chloromethane         ND         10         µg/Kg wet           Chloromethane         ND         5.0         µg/Kg wet           Chloromochloropropene         ND         5.0         µg/Kg wet           Dibromochloromethane         ND         5.0         µg/Kg wet           Dibromochloromethane         ND         5.0         µg/Kg wet           Mp/Sylene         ND         5.0         µg/Kg wet           Mp/Py Sylene         ND         5.0         µg/Kg wet           Methyl-t-Butyl Ether         ND         5.0         µg/Kg wet           ND         5.0         µg/Kg wet           Styrene         ND         5.0         µg/Kg wet           Fetrachloroethene         ND         5.0         µg/Kg wet           Follower	Benzene	ND	5.0	μg/Kg wet						
Paramomethane   ND   10	Bromodichloromethane	ND	5.0	μg/Kg wet						
Carbon Disulfide ND 10 µg/Kg wet Carbon tetrachloride ND 5.0 µg/Kg wet Chlorobenzene ND 5.0 µg/Kg wet Chlorobenzene ND 5.0 µg/Kg wet Chlorobethane ND 10 µg/Kg wet Chloroform ND 5.0 µg/Kg wet Chloroform ND 5.0 µg/Kg wet Chloromethane ND 10 µg/Kg wet Chloromethane ND 5.0 µg/Kg wet Chloromethane Chloromethane Chloromethane Chloromethane Chlor	Bromoform	ND	5.0	μg/Kg wet						
Carbon tetrachloride         ND         5.0         µg/Kg wet           Chlorobenzene         ND         5.0         µg/Kg wet           Chloroform         ND         10         µg/Kg wet           Chloromethane         ND         5.0         µg/Kg wet           Chloromethane         ND         5.0         µg/Kg wet           Chloromethane         ND         5.0         µg/Kg wet           Chloromochloropopene         ND         5.0         µg/Kg wet           Chloromochloromethane         ND         5.0         µg/Kg wet           Ethylbenzene         ND         5.0         µg/Kg wet           Ethylbenzene         ND         5.0         µg/Kg wet           Methylene chloride         ND         5.0         µg/Kg wet           Methylene chloride         ND         5.0         µg/Kg wet           Methylene         ND         5.0         µg/Kg wet           Styrene         ND         5.0         µg/Kg wet           Styrene         ND         5.0         µg/Kg wet           Fetrachloroethene         ND         5.0         µg/Kg wet           Foluene         ND         5.0         µg/Kg wet           Foluene </td <td>Bromomethane</td> <td>ND</td> <td>10</td> <td>μg/Kg wet</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Bromomethane	ND	10	μg/Kg wet						
Chlorobenzene         ND         5.0         µg/Kg wet           Chloroethane         ND         10         µg/Kg wet           Chloroform         ND         5.0         µg/Kg wet           Chloromethane         ND         5.0         µg/Kg wet           Chloromethane         ND         5.0         µg/Kg wet           Cis-1,3-Dichloropropene         ND         5.0         µg/Kg wet           Cityloropropene         ND         5.0         µg/Kg wet           Methylene chloride         ND         5.0         µg/Kg wet           Methyl-t-Butyl Ether         ND         5.0         µg/Kg wet           ND         5.0         µg/Kg wet           Styrene         ND         5.0         µg/Kg wet           Styrene         ND         5.0         µg/Kg wet           Foluene         ND         5.0         µg/Kg wet           Foluene         ND         5.0         µg/Kg wet           Foluene         ND         5.	Carbon Disulfide	ND	10	μg/Kg wet						
Chloroethane         ND         10         µg/Kg wet           Chloroform         ND         5.0         µg/Kg wet           Chloromethane         ND         10         µg/Kg wet           Chloromethane         ND         5.0         µg/Kg wet           Chloropropene         ND         5.0         µg/Kg wet           Chloromethane         ND         5.0         µg/Kg wet           Chloropropene         ND         5.0         µg/Kg wet           Chloropropene         ND         5.0         µg/Kg wet           Chloropropene         ND         5.0         µg/Kg wet           Methylene chloride         ND         5.0         µg/Kg wet           Methylene chloride         ND         5.0         µg/Kg wet           D-Xylene         ND         5.0         µg/Kg wet           Styrene         ND         5.0         µg/Kg wet           Styrene         ND         5.0         µg/Kg wet           Follone         ND         5.0         µg/Kg wet           Follone         ND         5.0         µg/Kg wet           Follonopropene         ND         5.0         µg/Kg wet           Frichloroethene         ND	Carbon tetrachloride	ND	5.0	μg/Kg wet						
Chloroform         ND         5.0         µg/Kg wet           Chloromethane         ND         10         µg/Kg wet           cis-1,2-Dichloroethene         ND         5.0         µg/Kg wet           cis-1,3-Dichloropropene         ND         5.0         µg/Kg wet           Dibromochloromethane         ND         5.0         µg/Kg wet           Ethylbenzene         ND         5.0         µg/Kg wet           Methylene chloride         ND         5.0         µg/Kg wet           Methyl-t-Butyl Ether         ND         5.0         µg/Kg wet           D-Xylene         ND         5.0         µg/Kg wet           Styrene         ND         5.0         µg/Kg wet           Fetrachloroethene         ND         5.0         µg/Kg wet           Foluene         ND         5.0         µg/Kg wet           Foluene         ND         5.0         µg/Kg wet           Foluence         ND         5.0         µg/Kg wet           Foluence         ND         5.0         µg/Kg wet           Folichloroethene         ND         5.0         µg/Kg wet           Frichloroethene         ND         5.0         µg/Kg wet           Frichlor	Chlorobenzene	ND	5.0	μg/Kg wet						
Description	Chloroethane	ND	10	μg/Kg wet						
Discription   Discription	Chloroform	ND	5.0	μg/Kg wet						
cis-1,3-Dichloropropene         ND         5.0         µg/Kg wet           Dibromochloromethane         ND         5.0         µg/Kg wet           Ethylbenzene         ND         5.0         µg/Kg wet           m,p-Xylene         ND         5.0         µg/Kg wet           Methylene chloride         ND         20         µg/Kg wet           Methyl-t-Butyl Ether         ND         5.0         µg/Kg wet           D-Xylene         ND         5.0         µg/Kg wet           Styrene         ND         5.0         µg/Kg wet           Fetrachloroethene         ND         5.0         µg/Kg wet           Foluene         ND         5.0         µg/Kg wet           Foluene         ND         5.0         µg/Kg wet           Folichloroethene         ND         5.0         µg/Kg wet           Frichloropropene         ND         5.0         µg/Kg wet           Frichloroethene         ND         5.0         µg/Kg wet	Chloromethane	ND	10	μg/Kg wet						
Dibromochloromethane         ND         5.0         μg/Kg wet           Ethylbenzene         ND         5.0         μg/Kg wet           m,p-Xylene         ND         5.0         μg/Kg wet           Methylene chloride         ND         20         μg/Kg wet           Methyl-t-Butyl Ether         ND         5.0         μg/Kg wet           D-Xylene         ND         5.0         μg/Kg wet           Styrene         ND         5.0         μg/Kg wet           Fetrachloroethene         ND         5.0         μg/Kg wet           Foluene         ND         5.0         μg/Kg wet           Foluene         ND         5.0         μg/Kg wet           Froilhoroethene         ND         5.0         μg/Kg wet           Frichloroethene         ND         5.0         μg/Kg wet           Frichloroethene         ND         5.0         μg/Kg wet	cis-1,2-Dichloroethene	ND	5.0	μg/Kg wet						
Ethylbenzene ND 5.0 µg/Kg wet m,p-Xylene ND 5.0 µg/Kg wet Methylene chloride ND 20 µg/Kg wet Methyl-t-Butyl Ether ND 5.0 µg/Kg wet D-Xylene ND 5.0 µg/Kg wet Styrene ND 5.0 µg/Kg wet Fetrachloroethene ND 5.0 µg/Kg wet Foluene ND 5.0 µg/Kg wet Frans-1,2-Dichloroethene ND 5.0 µg/Kg wet Frans-1,3-Dichloropropene ND 5.0 µg/Kg wet Frichloroethene ND 5.0 µg/Kg wet	cis-1,3-Dichloropropene	ND	5.0	μg/Kg wet						
ND   S.0   μg/Kg wet   Wethylene chloride   ND   20   μg/Kg wet   Wethylene chloride   ND   S.0   μg/Kg wet   Wethylene   Wethylene   Wethylene   ND   S.0   μg/Kg wet   Wethylene   Weth	Dibromochloromethane	ND	5.0	μg/Kg wet						
Wethylene chloride         ND         20         µg/Kg wet           Wethyl-t-Butyl Ether         ND         5.0         µg/Kg wet           D-Xylene         ND         5.0         µg/Kg wet           Styrene         ND         5.0         µg/Kg wet           Fetrachloroethene         ND         5.0         µg/Kg wet           Foluene         ND         5.0         µg/Kg wet           rans-1,2-Dichloroethene         ND         5.0         µg/Kg wet           frichloroethene         ND         5.0         µg/Kg wet	Ethylbenzene	ND	5.0	μg/Kg wet						
Methyl-t-Butyl Ether         ND         5.0         μg/Kg wet           p-Xylene         ND         5.0         μg/Kg wet           Styrene         ND         5.0         μg/Kg wet           Fetrachloroethene         ND         5.0         μg/Kg wet           Foluene         ND         5.0         μg/Kg wet           rans-1,2-Dichloroethene         ND         5.0         μg/Kg wet           rans-1,3-Dichloropropene         ND         5.0         μg/Kg wet           Frichloroethene         ND         5.0         μg/Kg wet	m,p-Xylene	ND	5.0	μg/Kg wet						
D-Xylene         ND         5.0         μg/Kg wet           Styrene         ND         5.0         μg/Kg wet           Fetrachloroethene         ND         5.0         μg/Kg wet           Foluene         ND         5.0         μg/Kg wet           rans-1,2-Dichloroethene         ND         5.0         μg/Kg wet           rans-1,3-Dichloropropene         ND         5.0         μg/Kg wet           Frichloroethene         ND         5.0         μg/Kg wet	Methylene chloride	ND	20	μg/Kg wet						
Styrene         ND         5.0         µg/Kg wet           Fetrachloroethene         ND         5.0         µg/Kg wet           Foluene         ND         5.0         µg/Kg wet           rans-1,2-Dichloroethene         ND         5.0         µg/Kg wet           rans-1,3-Dichloropropene         ND         5.0         µg/Kg wet           Frichloroethene         ND         5.0         µg/Kg wet	Methyl-t-Butyl Ether	ND	5.0	μg/Kg wet						
Γetrachloroethene         ND         5.0 μg/Kg wet           Foluene         ND         5.0 μg/Kg wet           rans-1,2-Dichloroethene         ND         5.0 μg/Kg wet           rans-1,3-Dichloropropene         ND         5.0 μg/Kg wet           Γrichloroethene         ND         5.0 μg/Kg wet	o-Xylene	ND	5.0	μg/Kg wet						
Foluene         ND         5.0 µg/Kg wet           rans-1,2-Dichloroethene         ND         5.0 µg/Kg wet           rans-1,3-Dichloropropene         ND         5.0 µg/Kg wet           Frichloroethene         ND         5.0 µg/Kg wet	Styrene	ND	5.0	μg/Kg wet						
rans-1,2-Dichloroethene ND 5.0 $\mu$ g/Kg wet rans-1,3-Dichloropropene ND 5.0 $\mu$ g/Kg wet Frichloroethene ND 5.0 $\mu$ g/Kg wet	Tetrachloroethene	ND	5.0	μg/Kg wet						
rans-1,3-Dichloropropene ND 5.0 $\mu$ g/Kg wet Frichloroethene ND 5.0 $\mu$ g/Kg wet	Toluene	ND	5.0	μg/Kg wet						
Frichloroethene ND 5.0 μg/Kg wet	trans-1,2-Dichloroethene	ND	5.0	μg/Kg wet						
	trans-1,3-Dichloropropene	ND	5.0	μg/Kg wet						
Frichlorofluoromethane ND 10 μg/Kg wet	Trichloroethene	ND	5.0	μg/Kg wet						
	Trichlorofluoromethane	ND	10	μg/Kg wet						



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

**GCMS Volatiles - Quality Control** 

SW-846 8260B

Work Order: 1010637

Sample ID:

Bautsch - Gray Mine Site Project:

Blank (B006194-BLK1)

B006194 Batch:

Sample ID: Blatik (B000 194-BLK1)		IN	netnoa:	SVV-040	0200B		Preppea:		7/2010 7/2010 <i>1</i>	
Source:	Dogult	Limit	Linito	Lovol	Dogult	%REC	Analyzed: Limits	RPD		
Analyte Vinyl Acetate	Result	Limit 10	Units µg/Kg wet	Level	Result	70KEC	LIIIIII	KFD	Limit	Qual
Vinyl chloride	ND	10	μg/Kg wet							
Total 1,2-Dichloroethene	ND	10	μg/Kg wet							
Total Xylenes	ND	5.0	μg/Kg wet							
Surrogate: 1,2-Dichloroethane-d4	55	5.0		50.00		111	51.7-162			
Surrogate: 1,2-Dictriordernane-d4 Surrogate: 4-Bromofluorobenzene	50		μg/L	50.00		101	57.4-135			
Surrogate: 4-Biomofluoromethane	52		μg/L	50.00		101	63.5-139			
Surrogate: Distribution of the Charles  Surrogate: Toluene-d8	52 50		μg/L	50.00		101	66.6-143			
Surroyate. Toluene-uo			μg/L	30.00		101	00.0-143			
Sample ID: LCS (B006194-BS1) Source:		N	Method:	SW-846	8260B		Prepped: Analyzed:		7/2010 <i>1</i> 7/2010 <i>1</i>	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,1,1,2-Tetrachloroethane	56.0		μg/L	50.00		112	73.2-127		30	
1,1,1-Trichloroethane	54.8		μg/L	50.00		110	68.4-134		30	
1,1,2,2-Tetrachloroethane	52.7		μg/L	50.00		105	67.8-115		30	
1,1,2-Trichloroethane	54.2		μg/L	50.00		108	74-114		30	
1,1-Dichloroethane	57.0		μg/L	50.00		114	70.3-121		30	
1,1-Dichloroethene	48.8		μg/L	50.00		97.6	54-119		30	
1,2-Dichloroethane	55.5		μg/L	50.00		111	65.5-129		30	
1,2-Dichloropropane	55.5		μg/L	50.00		111	68.6-124		30	
2-Butanone	51.1		μg/L	50.00		102	55.8-114		30	
2-Hexanone	49.0		μg/L	50.00		98.0	49.9-110			
4-Methyl-2-Pentanone	53.2		μg/L	50.00		106	57-114		30	
Acetone	59.6		μg/L	50.00		119	37.2-135		30	
Acrylonitrile	59.3		μg/L	50.00		119	45.3-148		30	
Benzene	53.8		μg/L	50.00		108	71.8-123		30	
Bromodichloromethane	56.2		μg/L	50.00		112	69.4-132		30	
Bromoform	43.8		μg/L	50.00		87.6	54.7-123		30	
Bromomethane	36.9		μg/L	50.00		73.9	10-143		30	
Carbon Disulfide	58.1		μg/L	50.00		116	80-159		30	
Carbon tetrachloride	55.2		μg/L	50.00		110	68.6-138		30	
Chlorobenzene	56.6		μg/L	50.00		113	80.1-122		30	
Chloroethane	52.0		μg/L	50.00		104	53.6-121		30	
Chloroform	55.9		μg/L	50.00		112	71.9-127		30	
Chloromethane	46.9		μg/L	50.00		93.9	28.3-124		30	
cis-1,2-Dichloroethene	57.5		μg/L	50.00		115	81.5-132		30	
cis-1,3-Dichloropropene	57.2		μg/L	50.00		114	74.9-117		30	
Dibromochloromethane	50.2		μg/L	50.00		100	65.1-132		30	
Ethylbenzene	56.7		μg/L	50.00		113	77.1-124		30	
m,p-Xylene	444		//	400.0		111	77 4 106		20	
	114		μg/L	100.0		114	77.4-126		30	

Method:

09/17/2010 11:58

Prepped:



SW-846 8260B

#### **Analytical QC Summary**

Client: LATA-Kemron Remediation LLC - Albuquerque, NM

GCMS Volatiles - Quality Control

Prepped:

Analyzed:

09/17/2010 11:58

09/17/2010 14:04

Work Order: 1010637

Sample ID:

Source:

Project: Bautsch - Gray Mine Site

LCS (B006194-BS1)

**Batch:** B006194

Source.						•	Hilalyzeu.	09/11/2010	1 1.0 1
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD Limit	Qual
Methyl-t-Butyl Ether	51.8		μg/L	50.00		104	77.8-120	30	
o-Xylene	57.3		μg/L	50.00		115	74.9-124	30	
Styrene	58.0		μg/L	50.00		116	77.7-117	30	
Tetrachloroethene	56.8		μg/L	50.00		114	81.9-127	30	
Toluene	56.0		μg/L	50.00		112	76.7-122	30	
trans-1,2-Dichloroethene	53.8		μg/L	50.00		108	67.6-126	30	
trans-1,3-Dichloropropene	63.0		μg/L	50.00		126	77.6-129	30	
Trichloroethene	54.7		μg/L	50.00		109	73.1-131	30	
Trichlorofluoromethane	61.4		μg/L	50.00		123	61.3-140	30	
Vinyl Acetate	67.3		μg/L	50.00		135	52.4-154	30	
/inyl chloride	45.9		μg/L	50.00		91.8	48.5-124	30	
Surrogate: 1,2-Dichloroethane-d4	51		μg/L	50.00		102	51.7-162		
Surrogate: 4-Bromofluorobenzene	52		μg/L	50.00		103	57.4-135		
Surrogate: Dibromofluoromethane	50		μg/L	50.00		99.0	63.5-139		
Surrogate: Toluene-d8	51		μg/L	50.00		103	66.6-143		
Sample ID: Matrix Spike (B00619- Source: 1010650-01	4-MS1)	M	lethod:	SW-846	8260B		Prepped:	09/17/2010 09/17/2010	
Analyte	Result	Limit	Units	Level	Result	%REC	Analyzed: Limits	RPD Limit	
I,1,1,2-Tetrachloroethane	54.2	LIIIII	µg/L	50.00	ND	108	52.5-130	30	Quai
1,1,1-Trichloroethane	55.5		μg/L	50.00	ND	111	46.3-135	30	
1,1,2,2-Tetrachloroethane	54.1		μg/L	50.00	ND	108	56-146	30	
1,1,2-Trichloroethane	53.3		μg/L	50.00	ND	107	60.2-129	30	
1,1-Dichloroethane	56.7		μg/L	50.00	ND	113	59-131	30	
1,1-Dichloroethene	51.0		μg/L	50.00	ND	102	39.1-116	30	
1,2-Dichloroethane	53.6		μg/L	50.00	ND	107	54.7-126	30	
1,2-Dichloropropane	54.8		μg/L	50.00	ND	110	62.9-118	30	
2-Butanone	51.4		μg/L	50.00	ND	103	38.1-138	30	
2-Hexanone									
4-Methyl-2-Pentanone	47.1		μg/L	50.00	ND	94.1	34-149	30	
•			μg/L μg/L						S
Acetone	47.1 54.8 167		μg/L μg/L μg/L	50.00 50.00 50.00	ND ND 198	94.1 110	34-149 31.1-175 27.9-161	30 30 30	S
Acetone Acrylonitrile	47.1 54.8		µg/L µg/L µg/L µg/L	50.00 50.00	ND ND	94.1 110 NR	34-149 31.1-175	30 30	S
Acetone Acrylonitrile Benzene	47.1 54.8 167 64.7		µg/L µg/L µg/L µg/L µg/L	50.00 50.00 50.00 50.00	ND ND 198 ND	94.1 110 NR 129	34-149 31.1-175 27.9-161 39.4-186	30 30 30 30	S
Acetone Acrylonitrile Benzene Bromodichloromethane	47.1 54.8 167 64.7 53.8		µg/L µg/L µg/L µg/L µg/L	50.00 50.00 50.00 50.00 50.00	ND ND 198 ND ND	94.1 110 NR 129 108	34-149 31.1-175 27.9-161 39.4-186 54.8-120	30 30 30 30 30	S
Acetone Acrylonitrile Benzene Bromodichloromethane Bromoform	47.1 54.8 167 64.7 53.8 53.7		µg/L µg/L µg/L µg/L µg/L	50.00 50.00 50.00 50.00 50.00 50.00	ND ND 198 ND ND	94.1 110 NR 129 108 107	34-149 31.1-175 27.9-161 39.4-186 54.8-120 54.6-122	30 30 30 30 30 30	S
Acetone Acrylonitrile Benzene Bromodichloromethane Bromoform Bromomethane	47.1 54.8 167 64.7 53.8 53.7 43.4		µg/L µg/L µg/L µg/L µg/L µg/L µg/L	50.00 50.00 50.00 50.00 50.00 50.00	ND ND 198 ND ND ND ND	94.1 110 NR 129 108 107 86.8	34-149 31.1-175 27.9-161 39.4-186 54.8-120 54.6-122 31-122	30 30 30 30 30 30 30	S
Acetone Acrylonitrile Benzene Bromodichloromethane Bromoform Bromomethane Carbon Disulfide	47.1 54.8 167 64.7 53.8 53.7 43.4 31.3		µg/L µg/L µg/L µg/L µg/L µg/L	50.00 50.00 50.00 50.00 50.00 50.00 50.00	ND ND 198 ND ND ND ND ND	94.1 110 NR 129 108 107 86.8 62.6	34-149 31.1-175 27.9-161 39.4-186 54.8-120 54.6-122 31-122 10.8-142	30 30 30 30 30 30 30 30	S
Acetone Acrylonitrile Benzene Bromodichloromethane Bromoform Bromomethane Carbon Disulfide Carbon tetrachloride	47.1 54.8 167 64.7 53.8 53.7 43.4 31.3 61.4		µg/L µg/L µg/L µg/L µg/L µg/L µg/L µg/L	50.00 50.00 50.00 50.00 50.00 50.00 50.00 50.00	ND ND 198 ND ND ND ND ND ND ND	94.1 110 NR 129 108 107 86.8 62.6 123	34-149 31.1-175 27.9-161 39.4-186 54.8-120 54.6-122 31-122 10.8-142 16-177	30 30 30 30 30 30 30 30 30	S
4-Methyl-2-Pentanone Acetone Acrylonitrile Benzene Bromodichloromethane Bromomethane Carbon Disulfide Carbon tetrachloride Chlorobenzene Chloroethane	47.1 54.8 167 64.7 53.8 53.7 43.4 31.3 61.4 56.8		µg/L µg/L µg/L µg/L µg/L µg/L µg/L µg/L	50.00 50.00 50.00 50.00 50.00 50.00 50.00 50.00 50.00	ND ND 198 ND ND ND ND ND ND ND ND ND ND ND	94.1 110 NR 129 108 107 86.8 62.6 123 114	34-149 31.1-175 27.9-161 39.4-186 54.8-120 54.6-122 31-122 10.8-142 16-177 41.6-132	30 30 30 30 30 30 30 30 30 30	S

Method:



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

GCMS Volatiles - Quality Control

Work Order: 1010637

Project: Bautsch - Gray Mine Site

**Batch:** B006194

Sample ID: Source:	Matrix Spike (B006194- 1010650-01	MS1)	M	lethod:	SW-846	8260B		Prepped: Analyzed:		7/2010 1 7/2010 1	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Chloromethane		49.2		μg/L	50.00	ND	98.4	45.3-143		30	
cis-1,2-Dichloroet	thene	56.7		μg/L	50.00	ND	113	67-126		30	
cis-1,3-Dichloropi	ropene	52.4		μg/L	50.00	ND	105	49.9-139		30	
Dibromochlorome	ethane	48.6		μg/L	50.00	ND	97.3	52.1-132		30	
Ethylbenzene		56.4		μg/L	50.00	ND	113	33.4-133		30	
m,p-Xylene		111		μg/L	100.0	ND	111	30.5-132		30	
Methylene chloric	le	73.2		μg/L	50.00	32.7	80.9	53.8-125		30	
Methyl-t-Butyl Eth	ner	53.2		μg/L	50.00	0.750	105	41.1-144		30	
o-Xylene		55.6		μg/L	50.00	ND	111	38-123		30	
Styrene		54.9		μg/L	50.00	ND	110	16.9-131		30	
Tetrachloroethen	e	57.8		μg/L	50.00	ND	116	43-135		30	
Toluene		61.1		μg/L	50.00	7.60	107	35.2-143		30	
trans-1,2-Dichloro	pethene	55.3		μg/L	50.00	ND	111	53.7-120		30	
trans-1,3-Dichloro	propene	58.5		μg/L	50.00	ND	117	42-148		30	
Trichloroethene		55.8		μg/L	50.00	ND	112	37.1-145		30	
Trichlorofluorome	ethane	67.8		μg/L	50.00	ND	136	40.5-141		30	
Vinyl Acetate		13.2		μg/L	50.00	ND	26.4	22.5-184		30	
Vinyl chloride		49.5		μg/L	50.00	ND	99.0	54.5-143		30	
Surrogate: 1,2-Di	ichloroethane-d4	50		μg/L	50.00		101	51.7-162			
Surrogate: 4-Broi	mofluorobenzene	52		μg/L	50.00		104	57.4-135			
Surrogate: Dibror	mofluoromethane	50		μg/L	50.00		99.0	63.5-139			
Surrogate: Toluei	ne-d8	51		μg/L	50.00		102	66.6-143			

Sample ID: Source:	Matrix Spike 1010650-01	e Dup (B006194-MSD1)	N	lethod:	SW-846	8260B		Prepped: Analyzed:		7/2010 1 7/2010 1	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
1,1,1,2-Tetrachlo	roethane	51.5		μg/L	50.00	ND	103	52.5-130	5.03	30	
1,1,1-Trichloroeth	hane	52.4		μg/L	50.00	ND	105	46.3-135	5.90	30	
1,1,2,2-Tetrachlo	roethane	54.8		μg/L	50.00	ND	110	56-146	1.32	30	
1,1,2-Trichloroeth	hane	54.0		μg/L	50.00	ND	108	60.2-129	1.34	30	
1,1-Dichloroethai	ne	55.7		μg/L	50.00	ND	111	59-131	1.89	30	
1,1-Dichloroether	ne	48.0		μg/L	50.00	ND	95.9	39.1-116	6.20	30	
1,2-Dichloroethai	ne	54.5		μg/L	50.00	ND	109	54.7-126	1.70	30	
1,2-Dichloropropa	ane	53.9		μg/L	50.00	ND	108	62.9-118	1.66	30	
2-Butanone		51.0		μg/L	50.00	ND	102	38.1-138	0.821	30	
2-Hexanone		49.3		μg/L	50.00	ND	98.6	34-149	4.59	30	
4-Methyl-2-Penta	anone	53.7		μg/L	50.00	ND	107	31.1-175	2.12	30	
Acetone		158		μg/L	50.00	197	NR	27.9-161	5.89	30	S
Acrylonitrile		60.0		μg/L	50.00	ND	120	39.4-186	7.56	30	
Benzene		52.0		μg/L	50.00	ND	104	54.8-120	3.23	30	
Bromodichlorome	ethane	53.3		μg/L	50.00	ND	107	54.6-122	0.822	30	



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

GCMS Volatiles - Quality Control

Work Order: 1010637

Project: Bautsch - Gray Mine Site

**Batch:** B006194

•	atrix Spike Dup (B006194-MSD 010650-01	1)	Method:	SW-846	8260B		Prepped: Analyzed:		7/2010 <i>1</i> 7/2010 <i>1</i>	
Analyte	Resu	lt Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Bromoform	43	.0	μg/L	50.00	ND	86.0	31-122	0.995	30	
Bromomethane	33	.9	μg/L	50.00	ND	67.9	10.8-142	8.06	30	
Carbon Disulfide	54	.0	μg/L	50.00	ND	108	16-177	12.9	30	
Carbon tetrachloride	52	.2	μg/L	50.00	ND	104	41.6-132	8.48	30	
Chlorobenzene	52	.6	μg/L	50.00	ND	105	36.8-129	4.26	30	
Chloroethane	48	.0	μg/L	50.00	ND	96.0	42.4-126	13.2	30	
Chloroform	54	.9	μg/L	50.00	2.77	104	64-123	3.63	30	
Chloromethane	44	.4	μg/L	50.00	ND	88.7	45.3-143	10.4	30	
cis-1,2-Dichloroethen	e 54	.5	μg/L	50.00	ND	109	67-126	3.92	30	
cis-1,3-Dichloroprope	ene 50	.2	μg/L	50.00	ND	100	49.9-139	4.41	30	
Dibromochlorometha	ne 47	.6	μg/L	50.00	ND	95.3	52.1-132	2.08	30	
Ethylbenzene	53	.6	μg/L	50.00	ND	107	33.4-133	5.09	30	
m,p-Xylene	10	06	μg/L	100.0	ND	106	30.5-132	4.84	30	
Methylene chloride	70	.0	μg/L	50.00	32.6	74.9	53.8-125	4.36	30	
Methyl-t-Butyl Ether	52	.9	μg/L	50.00	0.747	104	41.1-144	0.603	30	
o-Xylene	52	.4	μg/L	50.00	ND	105	38-123	6.00	30	
Styrene	52	.6	μg/L	50.00	ND	105	16.9-131	4.20	30	
Tetrachloroethene	52	.6	μg/L	50.00	ND	105	43-135	9.58	30	
Toluene	59	.1	μg/L	50.00	7.57	103	35.2-143	3.28	30	
trans-1,2-Dichloroeth	ene 52	.0	μg/L	50.00	ND	104	53.7-120	6.11	30	
trans-1,3-Dichloropro	pene 57	.1	μg/L	50.00	ND	114	42-148	2.44	30	
Trichloroethene	53	.1	μg/L	50.00	ND	106	37.1-145	5.01	30	
Trichlorofluoromethan	ne 57	.4	μg/L	50.00	ND	115	40.5-141	16.6	30	
Vinyl Acetate	6.2	27	μg/L	50.00	ND	12.5	22.5-184	71.1	30	RS
Vinyl chloride	43	.2	μg/L	50.00	ND	86.4	54.5-143	13.6	30	
Surrogate: 1,2-Dichlo	proethane-d4	52	μg/L	50.00		104	51.7-162			
Surrogate: 4-Bromofl	uorobenzene	52	μg/L	50.00		104	57.4-135			
Surrogate: Dibromofl	uoromethane	19	μg/L	50.00		97.7	63.5-139			
Surrogate: Toluene-d	18	50	μg/L	50.00		101	66.6-143			



Client: LATA-Kemron Remediation LLC - Albuquerque, NM Metals - Quality Control

Work Order: 1010637

Project: Bautsch - Gray Mine Site

**Batch:** B006234 **Prep:** SW846 3050B



Client: LATA-Kemron Remediation LLC - Albuquerque, NM **Metals - Quality Control** 

1010637 Work Order:

Bautsch - Gray Mine Site Project:

B006234 Prep: SW846 3050B Batch:

Total	Metals	bv	ICP

Silver

Total Metals	by ICP									
Sample ID: Source:	Blank (B006234-BLK1)	ľ	Method:	SW-846	6010B		Prepped: Analyzed:		0/2010 2/2010	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	ND	0.50	mg/Kg wet							
Barium	ND	0.10	mg/Kg wet							
Cadmium	ND	0.10	mg/Kg wet							
Chromium	ND	0.15	mg/Kg wet							
Lead	ND	0.38	mg/Kg wet							
Selenium	ND	1.5	mg/Kg wet							
Silver	ND	0.50	mg/Kg wet							
Sample ID: Source:	LCS (B006234-BS1)	ľ	Method:	SW-846	6010B		Prepped: Analyzed:		0/2010 2/2010	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	228	1.0	mg/Kg wet	238.0	rvesuit	96.0	65.1-118	ND	20	Qual
Barium	239	0.20	mg/Kg wet	243.0		98.4	68.3-118		20	
Cadmium	169	0.20		185.0		91.4	64.9-112		20	
			mg/Kg wet						20	
Chromium	107	0.30	mg/Kg wet	104.0		103	65.8-124			
Lead	135	0.75	mg/Kg wet	154.0		87.9	62.9-110		20	
Selenium	131	3.0	mg/Kg wet	156.0		83.8	54.9-110		20	
Silver	64.2	1.0	mg/Kg wet	73.20		87.7	56.8-113		20	
Sample ID: Source:	Matrix Spike (B006234-MS1) 1010668-01	ľ	Method:	SW-846	6010B		Prepped: Analyzed:		0/2010 2/2010	08:44 20:46
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Arsenic	119	0.58	mg/Kg dry	116.9	3.03	98.8	75-125		20	
Barium	255	0.12	mg/Kg dry	128.6	6.71	193	75-125		20	s
Cadmium	12.1	0.12	mg/Kg dry	11.69	0.221	102	75-125		20	
Chromium	132	0.18	mg/Kg dry	116.9	2.33	111	75-125		20	
Lead	129	0.44	mg/Kg dry	116.9	22.3	91.3	75-125		20	
Selenium	112	1.8	mg/Kg dry	116.9	5.92	91.0	75-125		20	
Silver	11.2	0.58	mg/Kg dry	11.69	0.176	94.1	75-125		20	
Sample ID: Source:	Matrix Spike Dup (B006234-MSD1) 10I0668-01	ľ	Method:	SW-846	6010B		Prepped: Analyzed:		0/2010 2/2010	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	
Arsenic	117	0.58	mg/Kg dry	116.9	3.03	97.2	75-125	1.64	20	~uui
Barium	256	0.12	mg/Kg dry	128.6	6.71	194	75-125	0.321	20	S
Cadmium	11.2	0.12	mg/Kg dry	11.69	0.71	93.8	75-125	7.88	20	3
Chromium	130	0.12	mg/Kg dry	116.9	2.33	109	75-125 75-125	1.56	20	
Lead	127	0.18	mg/Kg dry	116.9	2.33	89.3	75-125 75-125	1.87	20	
Leau Selenium	110			116.9	5.92	89.2	75-125 75-125	1.84	20	
Selemum	110	1.8	mg/Kg dry	110.9	5.92	09.2	75-125	1.04	20	

11.69

0.176

93.2

75-125

0.946

20

0.58 mg/Kg dry

11.1



Client: LATA-Kemron Remediation LLC - Albuquerque, NM Metals - Quality Control

Work Order: 1010637

Project: Bautsch - Gray Mine Site

**Batch:** B006234 **Prep:** SW846 3050B

Sample ID:	Post Spike (B006234-PS1	)	IV	lethod:	SW-846	6010B	F	Prepped:	09/20	)/2010 0	8:44
Source:	1010668-01							Analyzed:	09/23	3/2010 1	2:43
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Barium		4.38		mg/Kg	2.200	0.118	194	85-115			S

Batch: B006249 Prep: SW-846 7471

#### **Total Mercury by CVAA**

Sample ID: Source:	Blank (B006249-BLK1)	N	Method:	SW-846	7471A		Prepped: Analyzed:		0/2010 0 1/2010 1	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	ND	0.0010	mg/Kg wet		resuit	701 KLO	Liiiito	TKI D	Liiiii	Quui
	<del>``</del>									
Sample ID:	LCS (B006249-BS1)	N	/lethod:	SW-846	7471A	F	Prepped:	09/2	0/2010 0	08:46
Source:							Analyzed:	09/2	1/2010 1	13:19
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	5.94	2.0	mg/Kg wet	7.070		84.0	41.9-122			
Sample ID:	Matrix Spike (B006249-MS1)	N	/lethod:	SW-846	7471A	ı	Prepped:	09/2	0/2010 0	08:46
Source:	1010668-01						Analyzed:	09/2	1/2010 1	13:30
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	0.117	0.042	mg/Kg dry	0.08350	0.0343	99.0	70-130		20	
Sample ID:	Matrix Spike Dup (B006249-MSD1)	N	/lethod:	SW-846	7471A	F	Prepped:	09/2	0/2010 0	08:46
Source:	1010668-01						Analyzed:	09/2	1/2010 1	13:32
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Mercury	0.110	0.043	mg/Kg dry	0.08595	0.0343	88.4	70-130	5.94	20	



Client: LATA-Kemron Remediation LLC - Albuquerque, NM

Wet Chemistry - Quality Control

Work Order: 1010637

Project: Bautsch - Gray Mine Site

**Batch:** B006208

#### **Percent Solids**

Sample ID: Source:	Duplicate (B006208-DUF 10I0637-02	P1)	N	lethod:	SM2540	B Rev 18		Prepped: Analyzed:		7/2010 1 0/2010 (	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Qual
Percent Solids		96.7	0.10	wt%		96.7			0.0771	20	

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7 <b>Record</b> 39	Report Type	MLevel II	[] Level III CLP-like [] Level IV CLP-like			com		For Lab Use Only		7590707	40								Archive	Date/Time	Date/Time	e/Time	2/11/10
Chain of Custody Record Number 98239	Instructions on back	[] Results Only	[] Level III [] Level IV	[] [[]	- '	1500 @gmail	oecify) ane, (U) Unpreserve												[] Return [] Ard	(re)	(B)	(signature)	
Ch.	Ins Turnaround Time	orking days)	ly lab)	(needed by)	Sampler Phone #	was tomurmson	ater (WW), Other (sp Thiosulfate, (9) Hex		3800 € 508 E E E E E E E E E E E E E E E E E E E	/ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	/ / /								Dispose as appropriate	Received By (signature)	Received By (signature)	Received for Lab By (signature)	1212
[] 5713 West 85th Street Indianapolis, IN 46278 Tel: 317-872-1375 Fax: 317-872-1379		M Routine ( working days)	[] RUSH* (notify lab)			Ke-mail (address)	Surface Water (SW), Waste Water (WW), Other (specify) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (	Requested Analyses	Preservative CY	VANING	VArious /	3							Sample Disposition [] Dis				
[] 5713 We Indianap Tel: 317- Fax: 317	Gray Mine Site	7.	] Yes(1) [3]No				), Groundwater (GW), Surface V etate, (6) Methanol, (7) Sodium	sıənir	me Collec	S Ni	5	2.7.3							Sample		ure) Date/Time	ure) Date/Time	
250 West 84th Drive Merrillville, IN 46410 Tel: 219-769-8378 Fax: 219-769-1664	Brutsch	on Galeva,	Compliance Monitoring? [] Yes(1) [4]No	(1)Agency/Program	Sampler Signature		ater (DW), Groundw ) Zinc Acetate, (6) N	pəı	ltered ate Collec	6	9/16/10	, ,,							[] Radioactive	Relingwished By (signature)	ishe	Relinquished By (signature)	
M 250 West 84th Merrillville, IN Tel: 219-769-8: Fax: 219-769-1	Project		Complex	(1)Ager	l s		inking Wa JaOH, (5)		ətisoqmo	_			á						zardous	Reling	Reing		
	1700	Ste 400	8///8			(fax #)	Wipe, Dr HCI, (4) I		atrix* der		S			-					[] Non-Hazardous			10	
Samples Submitted to:	Remed	d. NE	) hal	95.9%	Urmsow	[]Telephone []Fax (fax #)	iid (S), Sludge, Oil, ' 33, (2) H2SO4, (3) I												[] Hazardous []				degrees C = 7
Microbac	ent Name LAT	Stress 2424 Louisians Blud	ntact Tom Unwsol	lephone # 859 621-7646	mpled by (PRINT)	nd Report via [] Mail [] Te	* Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)  ** Preservative Types: (1) HNO3, (2) H2SO4, (3) HCI, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved	17/2010	Client Sample ID	1 H&	242	· ·	ationalog pipelog syptometry kills also desta products etche y housevalum descourses as mances as estaccionas associatas associatas as a second		на Опидалля падагодня вод восного автамия на падагодня восного действення водет петементелення петементелення п				Possible Hazard Identification	<b>G</b> mments age	33	of (	Sample temperature upon receipt in degrees C =
Bautsci	Debora Kemron F h - Grav	Mine S	Site				rque, l	IM		amozáricoso z z z						etions and			LO.	Ouge	-		33-

## ATTACHMENT E HYDROGEOLOGICAL MODELING RESULTS

#### BAUTSCH-GRAY MINE SITE JO DAVIESS COUNTY, ILLINOIS

#### HYDROLOGIC MODELING SUMMARY AND RESULTS

The hydrologic study performed at the Bautsch-Gray Mine Site began by identifying the existing conditions of the site. A topographic map was provided by U.S. EPA FIELDS showing the general topographic features that were used to determine locations of low spots, watersheds, and blown out embankments. Areas tributary to the site were determined by using USGS 7.5 minute topographic maps. The boundaries were delineated and included in the existing conditions hydrologic model. The runoff curve numbers were developed based upon the aerial photos showing open areas without vegetation, dense forests, and some areas of grass range. All hydrologic soil groups were determined to be in either the C or D groups. The SCS hydrologic software of TR-20 was used to perform the calculations. A Huff 3<sup>rd</sup> Quartile distribution unit hydrograph was used with a rainfall depth of 7.36 inches over a 24 hour event to establish the 100-year, 24-hour flows.

The proposed plan for the site was to attenuate the peak flow of water from the site by installing a series of detention facilities, thereby reducing the flow of sediment across Blackjack Road. These detention facilities, with sedimentation basins below the outlet of the pond, allowed the "first flush" of water from a storm to settle out some portion of the sediment from the runoff before being released from the detention facility through an outlet control structure. The ponds were sized to an allowable release rate of 1.0 cfs/acre, resulting in a peak discharge from the site of approximately 37 cfs during the 100-year, 24-hour storm event. All the "clean" areas upstream of the site were routed through a ditch on the upstream property boundary to the property to the north. This ditch was lined with HDPE and stone in areas of high velocity, but otherwise was planted with natural grasses to prevent erosion during minor storm events.

The detention facilities each contained a stand pipe with perforations, designed to reduce the velocity of water entering the outlet control structure. Each was sized to handle small storm events in the perforations with larger events flowing through the top of the stand pipe. Riprap was installed around both the inlet and outlet of these stand pipes to prevent the erosion of the existing tailings on site.

As-built drawings show that the constructed embankments and ponds on site in conjunction with the outlet control structures provide adequate storage and peak flow attenuation to meet the project goals of 1.0 cfs/acre of flow during the 100-year, 24-hour storm event.

WinTR-20 Printed Page File Beginning of Input Data List C:\Users\coninxb\Documents\TR 20 files\BGUSEPA08262011.inp WinTR-20: Version 1.11 0 .1 0 BAUTSCH-GRAY AS-BUILT CONDITIONS BAUTSCH-GRAY SUPERFUND SITE - START PROGRAM - USEPA - GALENA, IL 10172011 SUB-AREA: SUBBASIN2 REACH 2 0.044286 94.7 SHEET 100. 0.13 Η SHALLOW 1397. 0.10 U 0.045 0.025 10.5 CHANNEL 1366. 16.2 SUBBASIN1 REACH 1 0.012139 93. SHEET 100. 0.2 Н SHALLOW 275. 0.02 U 0.021 0.025 CHANNEL 365. 32. 58. SUBBASIN 5REACH 5 0.029013 90.6 100. 0.06 1202. 0.15 586. 0.03 0.025 0.0037812598. SHEET Н SHALLOW U CHANNEL 7.5 32.1 SUBBASIN6 REACH 6 SHEET 100. 0.025 SHALLOW 637. 0.10 В U STREAM REACH: POND1 REACH 1 OUTLET POND 2 REACH 2 REACH 1 REACH 5 REACH 1 POND 5 REACH 6 OUTLET POND 6 STORM ANALYSIS: 100YR-24HR 0. 7.36 HUFF3RD24H2 3.11 665.
665.
0.0
665.8
0.000001
666.
0.73
2.1
667.
6.08
2.688
668.
14.00
3.446
669.
21.74
4.508
24.96
5.798 STRUCTURE RATING: POND 2 POND1 

 648.
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 650.
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 680.
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 681.
 1.75
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 682.
 5.63
 3.528

 683.
 7.52
 4.488

 684.
 8.87
 5.637

 685.
 9.97
 6.979

 686.
 10.93
 8.490

 687.
 11.79
 10.164

 POND 6 652. 652. 653. 654. 655. 0.00001 0.0623 0.00002 0.159 0.32 0.295 656. 1.96 0.479 RAINFALL DISTRIBUTION: HUFF3RD24H 1.2 .03 .06 0. .09 .12 .27 .19 .15 .23 .32 .38 .57 .70 .45 .79 .89 .95 .85 .92 .97

1.

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GLOBAL OUTPUT: YNNNN YNNNNN 3 .1

VERIFICATION:

WinTR-20 Printed Page File End of Input Data List

BAUTSCH-GRAY AS-BUILT CONDITIONS

BAUTSCH-GRAY SUPERFUND SITE - START PROGRAM - USEPA - GALENA, IL 10172011

Name of printed page file: C:\Users\coninxb\Documents\TR 20 files\BGUSEPA08262011.out

#### STORM 100YR-24HR

Area or	Drainage	Rain Gage	Runoff		Peak	Flow	
Reach	Area	ID or	Amount	Elevation	Time	Rate	Rate
Identifier	(sq mi)	Location	(in)	(ft)	(hr)	(cfs)	(csm)
SUBBASIN2	0.044		6.728		15.59	22.543	509.03
REACH 2	0.044	Upstream	6.728		15.59	22.543	509.03
REACH 2	0.044	Downstream	6.497	668.70	15.79	19.394	437.94
SUBBASIN1	0.012		6.526		15.59	6.134	505.34
SUBBASIN 5	0.029		6.246		15.59	14.445	497.87
REACH 5	0.029	Upstream	6.246		15.59	14.445	497.87
REACH 5	0.029	Downstream	5.285	683.31	17.08	7.940	273.66
REACH 1	0.085	Upstream	6.089		15.63	32.848	384.47
REACH 1	0.085	Downstream	5.752	651.92	15.74	32.178	376.63
SUBBASIN6	0.004		7.116		15.60	1.943	513.77
REACH 6	0.004	Upstream	7.116		15.60	1.943	513.77
REACH 6	0.004	Downstream	6.095	655.86	15.66	1.726	456.52
OUTLET	0.089		5.766		15.73	33.893	379.88

## BAUTSCH-GRAY AS-BUILT CONDITIONS BAUTSCH-GRAY SUPERFUND SITE - START PROGRAM - USEPA - GALENA, IL 10172011

Area or	Drainage			- Peak	Flow by Storm		
Reach	Area	Alternate	100YR-24HR				
Identifier	(sq mi)		(cfs)	(cfs)	(cfs)	(cfs)	(cfs)
SUBBASIN2	0.044		22.543				
SUBBASIN1	0.012		6.134				
SUBBASIN 5	0.029		14.445				
SUBBASIN6	0.004		1.943				
REACH 1	0.085		32.848				
DOWNSTREAM			32.178				
REACH 2	0.044		22.543				
DOWNSTREAM			19.394				
REACH 5	0.029		14.445				
DOWNSTREAM			7.940				
REACH 6	0.004		1.943				
DOWNSTREAM			1.726				
OUTLET	0.089		33.893				

# ATTACHMENT F AIR SAMPLING RESULTS

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

July 27, 2011

Weston Solutions 20 North Wacker Drive Suite 1210

Chicago, IL 60606

Telephone: (312) 424-3339 Fax: (312) 424-3330

RE: Bautsch-Gray Mine RV, Galena, IL

STAT Project No: 11070716

#### Dear Lisa Graczyk:

STAT Analysis received 5 samples for the referenced project on 7/20/2011 11:15:00 AM. The analytical results are presented in the following report.

All analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met AIHA, EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. Sample acceptance criteria has been met unless noted in the Case Narrative or Sample Receipt Checklist. If required, an estimate of uncertainty for the analyses can be provided. Sample results have not been corrected for contamination based on field blank or other analytical blank, unless noted in the case narrative.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

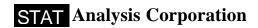
Sincerely,

fation Ara

Catia Giannini

Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory. This analytical report shall become property of the Customer upon payment in full. Otherwise, STAT will be under no obligation to support, defend or discuss the analytical report.



**Date:** July 27, 2011

**Client:** Weston Solutions

Project: Bautsch-Gray Mine RV, Galena, IL Work Order Sample Summary

**Lab Order:** 11070716

Lab Sample ID	Client Sample ID	Tag Number	<b>Collection Date</b>	Date Received
11070716-001A	BG-AirF-071911	913 L	7/19/2011 4:33:00 PM	7/20/2011
11070716-002A	BG-AirI-071911	898 L	7/19/2011 4:28:00 PM	7/20/2011
11070716-003A	BG-AirJ-071911	862 L	7/19/2011 4:36:00 PM	7/20/2011
11070716-004A	BG-AirA-071911	932 L	7/19/2011 4:38:00 PM	7/20/2011
11070716-005A	MB-Air-071911		7/19/2011	7/20/2011

## **STAT** Analysis Corporation

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

**Date Reported:** July 27, 2011 **Date Printed:** July 27, 2011

				D	ate Printe	<b>d:</b> July 27, 2011	
Client: Project:	Weston Solutions Bautsch-Gray Mine RV,	Galena, IL			Lab Orde	er: 11070716	
Lab ID:	11070716-001			Colle	ection Da	te: 7/19/2011 4:3	33:00 PM
Client Sample ID	BG-AirF-071911				Matr	<b>ix:</b> Air	
Analyses		Result	RL	Qualifier	Units	<b>DF</b>	Date Analyzed
Metals in Air		N7300M			Prep	Date: 7/26/2011	Analyst: <b>JG</b>
Arsenic		ND	1.1		μg/m³	10	7/26/2011
Lead		ND	1.1		µg/m³	10	7/26/2011
Particulates in Air		NIOSH05	500		Prep	Date: 7/20/2011	Analyst: <b>JP</b>
Particulates in Air		0.44	0.22	*	mg/m³	1	7/21/2011
Lab ID:	11070716-002			Colle	ection Da	te: 7/19/2011 4:2	28:00 PM
Client Sample ID	BG-AirI-071911				Matr	ix: Air	
Analyses		Result	RL	Qualifier	Units	<b>DF</b>	Date Analyzed
Metals in Air		N7300M			Prep	Date: 7/26/2011	Analyst: <b>JG</b>
Arsenic		ND	1.1		μg/m³	10	7/26/2011
Lead		ND	1.1		µg/m³	10	7/26/2011
Particulates in Air		NIOSH0	500		Prep	Date: 7/20/2011	Analyst: JP
Particulates in Air		1.4	0.22	*	mg/m³	1	7/21/2011
Lab ID:	11070716-003			Colle	ection Da	te: 7/19/2011 4:3	36:00 PM
Client Sample ID	BG-AirJ-071911				Matr	ix: Air	
Analyses		Result	RL	Qualifier	Units	<b>DF</b>	Date Analyzed
Metals in Air		N7300M			Prep	Date: 7/26/2011	Analyst: <b>JG</b>
Arsenic		ND	1.2		μg/m³	10	7/26/2011
Lead		ND	1.2		μg/m³	10	7/26/2011
Particulates in Air		NIOSH0	500		Prep	Date: 7/20/2011	Analyst: <b>JP</b>

ND - Na	ot Detected	lat the R	enorting	Limit

Qualifiers: J - Analyte detected below quantitation limits

Particulates in Air

B - Analyte detected in the associated Method Blank

ND

HT - Sample received past holding time

\* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

7/21/2011

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

H - Holding time exceeded

mg/m<sup>3</sup>

0.23



2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

**Date Reported:** July 27, 2011 **Date Printed:** July 27, 2011

DF

**Date Analyzed** 

Client:	Weston Solutions
CHUIL.	W CStoll Bolutions

**Analyses** 

Qualifiers:

Project: Bautsch-Gray Mine RV, Galena, IL Lab Order: 11070716

**Lab ID:** 11070716-004 **Collection Date:** 7/19/2011 4:38:00 PM

Client Sample ID BG-AirA-071911 Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	]	Date Analyzed
Metals in Air	N7300M			Prep	Date: <b>7/26</b>	/2011	Analyst: <b>JG</b>
Arsenic	ND	1.1		µg/m³	10		7/26/2011
Lead	ND	1.1		µg/m³	10		7/26/2011
Particulates in Air	NIOSH05	00		Prep	Date: <b>7/20</b>	/2011	Analyst: <b>JP</b>
Particulates in Air	ND	0.21	*	mg/m³	1		7/21/2011

**Lab ID:** 11070716-005 **Collection Date:** 7/19/2011

Result

Client Sample ID MB-Air-071911 Matrix: Air

							_
Metals in Air	N7300M			Prep Date: <b>7/26/2011</b>		Analyst: <b>JG</b>	
Arsenic	ND	1		μg/filter	10	7/26/2011	
Lead	ND	1		μg/filter	10	7/26/2011	
Particulates in Air	NIOSH0500			Prep Date: 7/20/2011		Analyst: JP	
Particulates in Air	ND	0.2	*	mg/filter	1	7/21/2011	

RL Oualifier Units

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

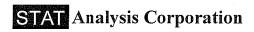
R - RPD outside accepted recovery limits

E - Value above quantitation range

H - Holding time exceeded

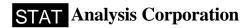
OIM ANALYSIS COrporation
2242 W. Harrison, Suite 200, Chicago, Illinois 60612 Phone: (312) 733-0551 Fax: (312) 733-2386
e-mail address: STATinfo@STATAnalysis.com AIHA, NVLAP and NELAP accredited

CF	CHAIN OF CUSTODY RECORD Nº9.	833618 7
Company: WESTON SewoTrews		1480.
Project Number: Client Tracking No.:		(11/1/1/1/1/1/
Project Name: BrotscH - GRAY MINERY	Onote No .	
Project Location: あみたい ユー		
1	1 (24)	
Report To: Lisk Graczik Phone:		
JEFF BOYN, 425KI Fax;		Turn Around:
QC Level: $1   2 \times 3   4$		The state of the s
Client Sample Number/Description: Date Taken Time Kine Gibbon Client Sample Number/Description: Date Taken Taken Machine Company of Company Co	No. of Containers	am/pm
Ba-AIRF-071911 07/19/11 16-73 AIR X	x ×	G 1.2   O 2.
ARI-071911	* * *	
	*	
The desired of the latest terms of the latest	X	
MB- AIR - 071911 + - 4 V	* * *	
	``	
	ر ا	Laboratory Work Order No.:
JIE)	1118	
Received by: (Signature) Date/Time:		Parising on Inc. Von [1]
Relinquished by: (Signature)	Preservation Code: A = None B = HNO.	NOT I SOLVED TO THE SOLVED TO
Received by: (Signature) Date/Time:	F = 5035/EnCore	G = Other



# Sample Receipt Checklist

Client Name WESTON CHICAGO		Date and Tim	e Received:	7/20/2011 11:15:00 AM
Work Order Number 11070716	/ ,	Received by:	CDF	
Checklist completed by:  Signature  Matrix:  Carrier name	Client Delivered	Reviewed by:	Initials	7/24/11 Date
	OHOLIC DOMOTOG			
Shipping container/cooler in good condition?	Yes 🗹	No 🗌	Not Present	
Custody seals intact on shippping container/cooler?	Yes	No 🗌	Not Present 🗹	
Custody seals intact on sample bottles?	Yes	No 🗌	Not Present 🗹	
Chain of custody present?	Yes 🗹	No 🗌		
Chain of custody signed when relinquished and received?	Yes 🗸	No 🗌		
Chain of custody agrees with sample labels/containers?	Yes 🗹	No $\square$		
Samples in proper container/bottle?	Yes 🔽	No 🗌		
Sample containers intact?	Yes 🗸	No $\square$		
Sufficient sample volume for indicated test?	Yes 🗹	No $\square$		
All samples received within holding time?	Yes 🗸	No $\square$		
Container or Temp Blank temperature in compliance?	Yes 🗹	No 🗌	Temperature	e ambient °C
Water - VOA vials have zero headspace? No VOA vials subm	nitted	Yes 🖽	No 🖾	
Water - Samples pH checked?	Yes	No 🖾	Checked by:	
Water - Samples properly preserved?	Yes 🔳	No 🔳	pH Adjusted?	
A A				
Any No response must be detailed in the comments section below.		<del></del>	- — — <del></del>	
			,	
Comments:				
Client / Person contacted: Date contacted:		Conta	cted by:	
		-		
Response:				



# PREP BATCH REPORT

Prep Start Date: 7/26/2011 1:17:00 P

Prep End Date:

Prep Factor Units:

Prep Batch 57519 Prep Code: M\_AIR\_PR Technician: JMS mL/

Sample ID	Matrix	рН	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
IRBA1 7/26/11			1	0	0	0.01	0.010	7/26/2011	7/26/2011
IMBA1 7/26/11			1	0	0	0.01	0.010	7/26/2011	7/26/2011
ILCSA1 7/26/11			1	0	0	0.01	0.010	7/26/2011	7/26/2011
ILCSDA1 7/26/11			1	0	0	0.01	0.010	7/26/2011	7/26/2011
11070716-001A	Air		0.913	0	0	0.01	0.011	7/26/2011	7/26/2011
11070716-002A	Air		0.898	0	0	0.01	0.011	7/26/2011	7/26/2011
11070716-003A	Air		0.862	0	0	0.01	0.012	7/26/2011	7/26/2011
11070716-004A	Air		0.932	0	0	0.01	0.011	7/26/2011	7/26/2011
11070716-005A	Air		1	0	0	0.01	0.010	7/26/2011	7/26/2011
11070744-001A	Air		0.96	0	0	0.01	0.010	7/26/2011	7/26/2011
11070744-002A	Air		0.926	0	0	0.01	0.011	7/26/2011	7/26/2011
11070744-003A	Air		1	0	0	0.01	0.010	7/26/2011	7/26/2011
11070744-004A	Air		1	0	0	0.01	0.010	7/26/2011	7/26/2011
11070820-001A	Air		0.92	0	0	0.01	0.011	7/26/2011	7/26/2011
11070820-002A	Air		0.92	0	0	0.01	0.011	7/26/2011	7/26/2011
11070820-003A	Air		1	0	0	0.01	0.010	7/26/2011	7/26/2011
11070820-004A	Air		1	0	0	0.01	0.010	7/26/2011	7/26/2011
11070962-001A	Air		0.94	0	0	0.01	0.011	7/26/2011	7/26/2011
11070962-002A	Air		0.936	0	0	0.01	0.011	7/26/2011	7/26/2011
11070962-003A	Air		1	0	0	0.01	0.010	7/26/2011	7/26/2011
11070962-004A	Air		1	0	0	0.01	0.010	7/26/2011	7/26/2011

**CLIENT:** Weston Solutions

Work Order:

**Project:** 

11070716

Bautsch-Gray Mine RV, Galena, IL

# ANALYTICAL QC SUMMARY REPORT

**BatchID: 57519** 

Sample ID: Client ID:	IRBA1 7/26/11 ZZZZZ	SampType: MBLK Batch ID: 57519	TestCode: M_AIR TestNo: N7300M	Units: µg	Prep Date: <b>7/26/2011</b> Analysis Date: <b>7/26/2011</b>	Run ID: ICPMS-2_110726A SeqNo: 1965352
Analyte		Result	PQL SPK value	SPK Ref Val %REC	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Arsenic Lead		0.0111 0.057	1.0 1.0			J
Sample ID:	IMBA1 7/26/11	SampType: MBLK	TestCode: M_AIR	Units: µg/filter	Prep Date: 7/26/2011	Run ID: ICPMS-2_110726A
Client ID:	77777	Batch ID: 57519	TestNo: N7300M		Analysis Date: 7/26/2011	SeqNo: <b>1965353</b>
Analyte		Result	PQL SPK value	SPK Ref Val %REC	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Arsenic Lead		0.0096 0.0528	1.0 1.0			J J
Sample ID:	ILCSA1 7/26/11	SampType: <b>LCS</b>	TestCode: M_AIR	Units: µg/filter	Prep Date: 7/26/2011	Run ID: ICPMS-2_110726A
Sample ID: Client ID:	ILCSA1 7/26/11	SampType: LCS Batch ID: 57519	TestCode: M_AIR TestNo: N7300M	Units: µg/filter	Prep Date: <b>7/26/2011</b> Analysis Date: <b>7/26/2011</b>	Run ID: <b>ICPMS-2_110726A</b> SeqNo: <b>1965354</b>
·			_		Analysis Date: <b>7/26/2011</b>	_
Client ID:		Batch ID: <b>57519</b>	TestNo: <b>N7300M</b>	SPK Ref Val %REC	Analysis Date: 7/26/2011  LowLimit HighLimit RPD Ref Val  80 120 0	SeqNo: <b>1965354</b>
Client ID: Analyte Arsenic Lead		Batch ID: <b>57519</b> Result  4.632	TestNo: N7300M PQL SPK value 1.0 5	SPK Ref Val %REC 0.0096 92.4	Analysis Date: 7/26/2011  LowLimit HighLimit RPD Ref Val  80 120 0	SeqNo: 1965354  %RPD RPDLimit Qual
Client ID: Analyte Arsenic Lead Sample ID:	77777 ILCSDA1 7/26/11	Batch ID: 57519  Result  4.632 4.855  SampType: LCSD	TestNo: <b>N7300M</b> PQL SPK value  1.0 5 1.0 5 TestCode: <b>M_AIR</b>	SPK Ref Val %REC 0.0096 92.4 0.0528 96 Units: µg/filter	Analysis Date:       7/26/2011         LowLimit       HighLimit       RPD Ref Val         80       120       0         80       120       0         Prep Date:       7/26/2011         Analysis Date:       7/26/2011	SeqNo: 1965354  %RPD RPDLimit Qual  0 0  Run ID: ICPMS-2_110726A

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

<sup>\* -</sup> Non Accredited Parameter

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

H/HT - Holding Time Exceeded

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766

Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-0

October 29, 2010

Weston Solutions 20 North Wacker Drive Suite 1210

Chicago, IL 60606

Telephone: (312) 424-3339 Fax: (312) 424-3330

RE: Bautsch Gray Maine RV, Galena, IL STAT Project No: 10100747

Dear Lisa Graczyk:

STAT Analysis received 13 samples for the referenced project on 10/22/2010 9:30:00 AM. The analytical results are presented in the following report.

All analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met AIHA, EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. Sample acceptance criteria has been met unless noted in the Case Narrative or Sample Receipt Checklist. If required, an estimate of uncertainty for the analyses can be provided. Sample results have not been corrected for contamination based on field blank or other analytical blank, unless noted in the case narrative.

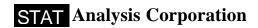
Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely,

Catia Giannini

Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory.



**Date:** October 29, 2010

**Client:** Weston Solutions

Project: Bautsch Gray Maine RV, Galena, IL Work Order Sample Summary

**Lab Order:** 10100747

Lab Sample ID	Client Sample ID	Tag Number	<b>Collection Date</b>	Date Received
10100747-001A	BG-Air E-101910	1500 L	10/19/2010	10/22/2010
10100747-002A	BG-Air F-101910	1512 L	10/19/2010	10/22/2010
10100747-003A	BG-Air H-101910	1476 L	10/19/2010	10/22/2010
10100747-004A	BG-Air I-101910	1209 L	10/19/2010	10/22/2010
10100747-005A	BG-Air E-102010	1695 L	10/20/2010	10/22/2010
10100747-006A	BG-Air F-102010	1497 L	10/20/2010	10/22/2010
10100747-007A	BG-Air H-102010	1209 L	10/20/2010	10/22/2010
10100747-008A	BG-Air I-102010	1635 L	10/20/2010	10/22/2010
10100747-009A	BG-Air E-102110	1593 L	10/21/2010	10/22/2010
10100747-010A	BG-Air F-102110	1132 L	10/21/2010	10/22/2010
10100747-011A	BG-Air G-102110	1428 L	10/21/2010	10/22/2010
10100747-012A	BG-Air I-102110	1584 L	10/21/2010	10/22/2010
10100747-013A	BG-Air Blank 2-102110		10/21/2010	10/22/2010

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

**Date Reported:** October 29, 2010 **Date Printed:** October 29, 2010

				D	ate Printe	d: Octobe	er 29, 2010
Client:	Weston Solutions						
Project:	Bautsch Gray Maine RV	, Galena, IL			Lab Orde	er: 101007	747
Lab ID:	10100747-001			Coll	ection Dat	te: 10/19/2	2010
Client Sample ID	BG-Air E-101910				Matr	ix: Air	
Analyses		Result	RL	Qualifier	Units	DF	Date Analyzed
Metals in Air		N7300			Prep	Date: 10/2	8/2010 Analyst: <b>JG</b>
Arsenic		ND	0.67		µg/m³	10	10/28/2010
Lead		ND	0.67		µg/m³	10	10/28/2010
Particulates in Air		NIOSH	0500		Prep	Date: 10/2	<b>2/2010</b> Analyst: <b>JP</b>
Particulates in Air		0.2	0.13	*	mg/m³	1	10/25/2010
Lab ID:	10100747-002			Coll	ection Dat	te: 10/19/2	2010
Client Sample ID	BG-Air F-101910				Matr	ix: Air	
Analyses		Result	RL	Qualifier	Units	DF	Date Analyzed
Metals in Air		N7300			Prep	Date: <b>10/2</b>	8/2010 Analyst: JG
Arsenic		ND	0.66		μg/m³	10	10/28/2010
Lead		ND	0.66		μg/m³	10	10/28/2010
Particulates in Air		NIOSH	0500		Prep	Date: 10/2	<b>2/2010</b> Analyst: <b>JP</b>
Particulates in Air		ND	0.13	*	mg/m³	1	10/25/2010
Lab ID:	10100747-003			Coll	ection Dat	te: 10/19/2	2010
Client Sample ID	BG-Air H-101910				Matr	ix: Air	
Analyses		Result	RL	Qualifier	Units	DF	Date Analyzed
Metals in Air		N7300			Prep	Date: 10/2	8/2010 Analyst: JG
Arsenic		ND	0.68		μg/m³	10	10/28/2010
Lead		ND	0.68		μg/m³	10	10/28/2010
Particulates in Air		NIOSH	0500		Prep	Date: 10/2	<b>2/2010</b> Analyst: <b>JP</b>
Dantia data a in Ain		ND	0.44	*		4	40/05/0040

ND - Not Detected	at the Reporting Limit
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Qualifiers: J - Analyte detected below quantitation limits

 $\boldsymbol{B}$  - Analyte detected in the associated Method Blank

ND

HT - Sample received past holding time

\* - Non-accredited parameter

Particulates in Air

RL - Reporting / Quantitation Limit for the analysis

10/25/2010

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

H - Holding time exceeded

mg/m<sup>3</sup>

0.14



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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

**Date Reported:** October 29, 2010

				D	ate Printe	ed: Octobe	er 29, 2010
Client: Project:	Weston Solutions Bautsch Gray Maine RV,	, Galena, IL			Lab Ord	er: 101007	747
Lab ID:	10100747-004			Colle	ection Da	te: 10/19/2	2010
Client Sample ID	BG-Air I-101910				Matr	ix: Air	
Analyses		Result	RL	Qualifier	Units	DF	Date Analyzed
Metals in Air Arsenic Lead		<b>N7300</b> ND ND	0.83 0.83		Prep µg/m³ µg/m³	Date: <b>10/2</b> 10 10	<b>8/2010</b> Analyst: <b>JG</b> 10/28/2010 10/28/2010
Particulates in Air Particulates in Air		NIOSH ND	<b>0500</b> 0.17	*	Prep mg/m³	Date: <b>10/2</b> 1	<b>2/2010</b> Analyst: <b>JP</b> 10/25/2010
Lab ID:	10100747-005			Colle	ection Da	ite: 10/20/2	2010
Client Sample ID	BG-Air E-102010				Matr	ix: Air	
Analyses		Result	RL	Qualifier	Units	DF	Date Analyzed
Metals in Air Arsenic Lead		<b>N7300</b> ND ND	0.59 0.59		Prep µg/m³ µg/m³	Date: <b>10/2</b> 10 10	<b>8/2010</b> Analyst: <b>JG</b> 10/28/2010 10/28/2010
Particulates in Air		NIOSH	0500		Prep	Date: <b>10/2</b>	<b>2/2010</b> Analyst: <b>JP</b>
Particulates in Air		ND	0.12	*	mg/m³	1	10/25/2010
Lab ID:	10100747-006			Colle	ection Da	te: 10/20/2	2010
Client Sample ID	BG-Air F-102010				Matr	ix: Air	
Analyses		Result	RL	Qualifier	Units	DF	Date Analyzed
Metals in Air Arsenic		<b>N7300</b> ND	0.67		Prep µg/m³	Date: <b>10/2</b>	<b>8/2010</b> Analyst: <b>JG</b> 10/28/2010
Lead		ND	0.67		μg/m³	10	10/28/2010
Lead  Particulates in Air		ND <b>NIOSH</b>			. 0		10/28/2010 <b>2/2010</b> Analyst: <b>JP</b>

ND - Not Detected a	it the	Reporting Limit
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J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

**Date Reported:** October 29, 2010 **Date Printed:** October 29, 2010

				D	ate Printe	ed: Octobe	er 29, 2010
Client:	Weston Solutions						
Project:	Bautsch Gray Maine RV	, Galena, IL			Lab Ord	er: 101007	747
Lab ID:	10100747-007			Coll	ection Da	te: 10/20/2	2010
Client Sample ID	BG-Air H-102010				Matr	ix: Air	
Analyses		Result	RL	Qualifier	Units	DF	Date Analyzed
Metals in Air		N7300			Prep	Date: <b>10/2</b>	8/2010 Analyst: JG
Arsenic		ND	0.83		µg/m³	10	10/28/2010
Lead		ND	0.83		µg/m³	10	10/28/2010
Particulates in Air		NIOSH	0500		Prep	Date: <b>10/2</b>	<b>2/2010</b> Analyst: <b>JP</b>
Particulates in Air		ND	0.17	*	mg/m³	1	10/25/2010
Lab ID:	10100747-008			Coll	ection Da	te: 10/20/2	2010
Client Sample ID	BG-Air I-102010				Matr	ix: Air	
Analyses		Result	RL	Qualifier	Units	DF	Date Analyzed
Metals in Air		N7300			Prep	Date: <b>10/2</b>	8/2010 Analyst: <b>JG</b>
Arsenic		ND	0.61		μg/m³	10	10/28/2010
Lead		ND	0.61		µg/m³	10	10/28/2010
Particulates in Air		NIOSH	0500		Prep	Date: <b>10/2</b>	<b>2/2010</b> Analyst: <b>JP</b>
Particulates in Air		ND	0.12	*	mg/m³	1	10/25/2010
Lab ID:	10100747-009			Coll	ection Da	te: 10/21/2	2010
Client Sample ID	BG-Air E-102110				Matr	ix: Air	
Analyses		Result	RL	Qualifier	Units	DF	Date Analyzed
Metals in Air		N7300			Prep	Date: <b>10/2</b>	8/2010 Analyst: JG
Arsenic		ND	0.63		μg/m³	10	10/28/2010
Lead		ND	0.63		µg/m³	10	10/28/2010
Particulates in Air		NIOSH	0500		Prep	Date: <b>10/2</b>	<b>2/2010</b> Analyst: <b>JP</b>
Dantia data a in Ain		ND	0.40				40/05/0040

ND - Not Detected at	t the Reporting Limit
----------------------	-----------------------

J - Analyte detected below quantitation limits

 $\boldsymbol{B}$  - Analyte detected in the associated Method Blank

ND

HT - Sample received past holding time

\* - Non-accredited parameter

Particulates in Air

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

10/25/2010

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

H - Holding time exceeded

mg/m<sup>3</sup>

0.13

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

**Date Reported:** October 29, 2010 Date Printed: October 29, 2010

				D	ate Printe	d: Octobe	er 29, 2010
Client:	Weston Solutions						
Project:	Bautsch Gray Maine RV,	Galena, IL			Lab Orde	er: 101007	47
Lab ID:	10100747-010			Colle	ection Da	te: 10/21/2	2010
Client Sample ID	BG-Air F-102110				Matr	ix: Air	
Analyses		Result	RL	Qualifier	Units	DF	Date Analyzed
Metals in Air		N7300			Prep	Date: <b>10/2</b>	8/2010 Analyst: JG
Arsenic		ND	0.88		µg/m³	10	10/28/2010
Lead		ND	0.88		µg/m³	10	10/28/2010
Particulates in Air		NIOSHO	500		Prep	Date: 10/2	2/2010 Analyst: JP
Particulates in Air		ND	0.18	*	mg/m³	1	10/25/2010
Lab ID:	10100747-011			Colle	ection Da	te: 10/21/2	2010
Client Sample ID	BG-Air G-102110				Matr	ix: Air	
Analyses		Result	RL	Qualifier	Units	DF	Date Analyzed
Metals in Air		N7300			Prep	Date: 10/2	8/2010 Analyst: JG
Arsenic		ND	0.7		μg/m³	10	10/28/2010
Lead		ND	0.7		µg/m³	10	10/28/2010
Particulates in Air		NIOSHO	500		Prep	Date: 10/2	2/2010 Analyst: JP
Particulates in Air		ND	0.14	*	mg/m³	1	10/25/2010
Lab ID:	10100747-012			Colle	ection Da	te: 10/21/2	2010
Client Sample ID	BG-Air I-102110				Matr	ix: Air	
Analyses		Result	RL	Qualifier	Units	DF	Date Analyzed
Metals in Air		N7300			Prep	Date: <b>10/2</b>	8/2010 Analyst: <b>JG</b>
Arsenic		ND	0.63		μg/m³	10	10/28/2010
Lead		ND	0.63		µg/m³	10	10/28/2010
Particulates in Air		NIOSHO	500		Prep	Date: 10/2	2/2010 Analyst: JP
Particulates in Air		ND	0.13	*	mg/m³	1	10/25/2010

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

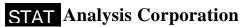
Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-

**Date Reported:** October 29, 2010 **Date Printed:** October 29, 2010

**Client:** Weston Solutions

Project: Bautsch Gray Maine RV, Galena, IL Lab Order: 10100747

**Lab ID:** 10100747-013 **Collection Date:** 10/21/2010

Client Sample ID BG-Air Blank 2-102110 Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Metals in Air	N7300			Prep	Date: <b>10/</b> 2	28/2010 Analyst: JG
Arsenic	ND	1		μg/filter	10	10/28/2010
Lead	ND	1		μg/filter	10	10/28/2010
Particulates in Air	NIOSH05	500		Prep	Date: 10/2	22/2010 Analyst: JP
Particulates in Air	ND	0.2	*	mg/filter	1	10/25/2010

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

STAT Analysis Corporation 2242 W: Harrison, Suite 200, Chicago, Illinois 60612 Phone: (312) 733-0551 Fax: (312) 733-2386 AIHA, NVLAP and NELAP accredited e-mail address; STATinfo@STATshalysis.com

CHAIN OF CUSTODY RECORD	Nº: 833614 Page: 1 of 1
Company: Wester Santons	
Project Number: Client Tracking No.:	
Project Name: But A with Mine RV	
155 (7.8. 284.2490)	
Phone:	Turn Around
Fax:	- CHO-108////////////////////////////////////
QC Level: 1 2 x 3 4 e-mail:	Results Needed.
Client Sample Number/Description: Date Taken Taken A Containers	ampm (10 Kerrell (11) Lab No.
X	00
-10:01-	700 7:5:
By ARCH-16 Giv	
BG 412 I -10 G12 ★	) vos ( ) ( ) ( )
A 12	700 Segi
36-A12 F 102216	300 762
36-AR H . 12 2010	
30 FIR I -16 2016 + 1       X X	)00 SEON
86 A.C. E 10211C 10/21/10	1543 009
BG-AIRF - 10211C	1/3/ 010
By-Ai2G - 102110	1428 01
186- A12.1-102110 N	100 FASI
Bla- AIR BUNKZ 102110 + - V V V X X	NA $0.03$
	2
	According to the state of the s
	The state of the s
Relinquished by: (Signature )	Laboratory Work Order No.:
Received by: (Signature) Pate(Time: 10/22/10 130	
Relinquished by: (Signature)	
Received by: (Signature)	Received on Ice: Yes No
Relinquished by (Signature) Date/Time: Preservation Code: A = None	B = HNO, C = NaOII
Date $T_{\text{IINE}}$ : De $H_2SO_4$ E = HCl	F = 5035/EnCore G = Other



# Sample Receipt Checklist

Client Name WESTON CHICAGO		Date and Tim	e Received:	10/22/2010 9:30:00 AM
Work Order Number 10100747	-	Received by:	CDF	, λ
Checklist completed by: Signature Date	10/21/10	Reviewed by:	Initials	10/25/10 Date
Matrix: Carrier name:	<u>FedEx</u>			
Shipping container/cooler in good condition?	Yes 🔽	No 🗌	Not Present	
Custody seals intact on shippping container/cooler?	Yes _	No 🗌	Not Present 🗹	
Custody seals intact on sample bottles?	Yes 🗌	No 🗌	Not Present 🔽	
Chain of custody present?	Yes 🗸	No 🗌		
Chain of custody signed when relinquished and received?	Yes 🗹	No 🗌		
Chain of custody agrees with sample labels/containers?	Yes 🗹	No 🗌		
Samples in proper container/bottle?	Yes 🔽	No 🗌		
Sample containers intact?	Yes 🗹	No 🗌		
Sufficient sample volume for indicated test?	Yes 🗹	No 🗌		
All samples received within holding time?	Yes 🗸	No 🗌		
Container or Temp Blank temperature in compliance?	Yes 🗹	No 🗌	Temperatur	re A,bient °C
Water - VOA vials have zero headspace? No VOA vials subn	nitted 🔠	Yes 🖳	No 🔢	
Water - Samples pH checked?	Yes 🔣	No 🔳	Checked by:	
Water - Samples properly preserved?	Yes 🔠	No 🌃	pH Adjusted?	
Any No response must be detailed in the comments section below.				
		· · · · · · · · · · · · · · · · · ·		
Comments:				
	· · · · · · · · · · · · · · · · · · ·			
Client / Person Date contacted:		Conta	acted by:	
Response:		- <del> </del>		

# PREP BATCH REPORT

Prep Start Date: 10/28/2010 4:10:00 Prep End Date: 10/28/2010 4:30:00

Prep Factor Units:

Prep Batch 52517	7 Prep C	ode: M_AI	<b>R_PR</b> Te	chnician: <b>JMS</b>			mL/		
Sample ID	Matrix	рН	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
IRBA1 10/28/10			1	0	0	0.01	0.010	10/28/2010	10/28/2010
IMBA1 10/28/10			1	0	0	0.01	0.010	10/28/2010	10/28/2010
ILCSA1 10/28/10			1	0	0	0.01	0.010	10/28/2010	10/28/2010
ILCSDA1 10/28/10			1	0	0	0.01	0.010	10/28/2010	10/28/2010
10100747-001A	Air		1.5	0	0	0.01	0.007	10/28/2010	10/28/2010
10100747-002A	Air		1.512	0	0	0.01	0.007	10/28/2010	10/28/2010
10100747-003A	Air		1.476	0	0	0.01	0.007	10/28/2010	10/28/2010
10100747-004A	Air		1.209	0	0	0.01	0.008	10/28/2010	10/28/2010
10100747-005A	Air		1.695	0	0	0.01	0.006	10/28/2010	10/28/2010
10100747-006A	Air		1.497	0	0	0.01	0.007	10/28/2010	10/28/2010
10100747-007A	Air		1.209	0	0	0.01	0.008	10/28/2010	10/28/2010
10100747-008A	Air		1.635	0	0	0.01	0.006	10/28/2010	10/28/2010
10100747-009A	Air		1.593	0	0	0.01	0.006	10/28/2010	10/28/2010
10100747-010A	Air		1.132	0	0	0.01	0.009	10/28/2010	10/28/2010
10100747-011A	Air		1.428	0	0	0.01	0.007	10/28/2010	10/28/2010
10100747-012A	Air		1.584	0	0	0.01	0.006	10/28/2010	10/28/2010
10100747-013A	Air		1	0	0	0.01	0.010	10/28/2010	10/28/2010

**CLIENT:** Weston Solutions

**Work Order:** 10100747

**Project:** Bautsch Gray Maine RV, Galena, IL

# ANALYTICAL QC SUMMARY REPORT

**BatchID: 52517** 

Sample ID	IRBA1 10/28/10	SampType:	MBLK	TestCoo	de: M_AIR	Units: µg		Prep Date	: 10/28/	2010	Run ID: ICI	PMS_101028	3B
Client ID:	ZZZZZ	Batch ID:	52517	TestN	lo: <b>N7300</b>			Analysis Date	e: <b>10/28/</b>	2010	SeqNo: 17	86318	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit I	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic			ND	1.0									
Lead			ND	1.0									
Sample ID	IMBA1 10/28/10	SampType:	MBLK	TestCoo	de: M_AIR	Units: µg/	/filter	Prep Date	: 10/28/	2010	Run ID: ICI	PMS_101028	3B
Client ID:	ZZZZZ	Batch ID:	52517	TestN	lo: <b>N7300</b>			Analysis Date	e: <b>10/28/</b>	2010	SeqNo: 17	86407	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic			ND	1.0									
Lead			0.0118	1.0									J
0 1 :-													
Sample ID	ILCSA1 10/28/10	SampType:	LCS	TestCod	de: M_AIR	Units: µg/	filter/	Prep Date	: 10/28/	2010	Run ID: ICI	PMS_101028	BB
Sample ID Client ID:	ILCSA1 10/28/10 ZZZZZ	SampType: Batch ID:			de: M_AIR do: N7300	Units: µg/	/filter	Prep Date Analysis Date			Run ID: ICI SeqNo: 17	_	3B
					_	Units: µg/	/filter %REC	•	e: <b>10/28/</b>	2010		_	<b>BB</b> Qual
Client ID:			52517	TestN	lo: <b>N7300</b>			Analysis Date	e: <b>10/28/</b>	2010	SeqNo: 17	86321	
Client ID:			<b>52517</b> Result	TestN PQL	No: <b>N7300</b> SPK value	SPK Ref Val	%REC	Analysis Date	e: <b>10/28/</b> HighLimit	2010 RPD Ref Val	SeqNo: 178	86321	
Client ID: Analyte Arsenic Lead	ZZZZZ		52517 Result 4.628 4.823	TestN PQL 1.0 1.0	SPK value	SPK Ref Val	%REC 92.6 96.2	Analysis Date  LowLimit	HighLimit 120 120	2010 RPD Ref Val 0 0	SeqNo: <b>17</b> 6 %RPD 0 0	86321	Qual
Client ID: Analyte Arsenic Lead	ZZZZZ	Batch ID:	52517 Result 4.628 4.823	PQL 1.0 1.0 TestCoo	SPK value 5	SPK Ref Val 0 0.0118	%REC 92.6 96.2	Analysis Date  LowLimit   80  80	HighLimit 120 120 120	2010 RPD Ref Val 0 0 0	SeqNo: <b>17</b> 6 %RPD 0 0	RPDLimit	Qual
Client ID: Analyte Arsenic Lead Sample ID	ZZZZZ  ILCSDA1 10/28/10	Batch ID:  SampType:	52517  Result  4.628 4.823  LCSD	PQL 1.0 1.0 TestCoo	SPK value  5 5 6e: M_AIR	SPK Ref Val 0 0.0118	%REC 92.6 96.2	Analysis Date  LowLimit   80   80    Prep Date  Analysis Date	HighLimit  120 120 2: 10/28/	2010 RPD Ref Val 0 0 0	SeqNo: 176 %RPD 0 0 Run ID: ICI	RPDLimit	Qual
Client ID: Analyte Arsenic Lead Sample ID Client ID:	ZZZZZ  ILCSDA1 10/28/10	Batch ID:  SampType:	52517  Result  4.628 4.823  LCSD 52517	PQL 1.0 1.0 TestCoc TestN	SPK value  5 5 6 Ele: M_AIR  N7300	SPK Ref Val  0 0.0118  Units: µg/	%REC 92.6 96.2 /filter	Analysis Date  LowLimit   80   80    Prep Date  Analysis Date	HighLimit  120 120 2: 10/28/	2010  RPD Ref Val  0 0 2010 2010	SeqNo: 176  %RPD  0 0 Run ID: ICI SeqNo: 176	PMS_101028	Qual BB

J - Analyte detected below quantitation limits

<sup>\* -</sup> Non Accredited Parameter

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

H/HT - Holding Time Exceeded

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP 1L300001; AIHA 101160; NVLAP LabCode 101202-0

September 29, 2010

Weston Solutions 20 North Wacker Drive Suite 1210

Chicago, IL 60606

Telephone: (312) 424-3339 Fax: (312) 424-3330

RE: Bautsch-Gray Mine RV, Galena, IL STAT Project No: 10090688

### Dear Lisa Graczyk:

STAT Analysis received 9 samples for the referenced project on 9/24/2010 9:30:00 AM. The analytical results are presented in the following report.

All analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met AIHA, EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. Sample acceptance criteria has been met unless noted in the Case Narrative or Sample Receipt Checklist. If required, an estimate of uncertainty for the analyses can be provided. Sample results have not been corrected for contamination based on field blank or other analytical blank, unless noted in the case narrative.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely,

Catia Aven

Catia Giannini

Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory.

Date: September 29, 2010

**Client:** Weston Solutions

Project: Bautsch-Gray Mine RV, Galena, IL Work Order Sample Summary

**Lab Order:** 10090688

Lab Sample ID	Client Sample ID	Tag Number	<b>Collection Date</b>	Date Received
10090688-001A	BG-AirA-092010	1266 L	9/20/2010 8:30:00 AM	9/24/2010
10090688-002A	BG-AirB-092010	840 L	9/20/2010 5:00:00 PM	9/24/2010
10090688-003A	BG-AirD-092010	1440 L	9/20/2010 5:00:00 PM	9/24/2010
10090688-004A	BG-AirE-092010	1446 L	9/20/2010 5:00:00 PM	9/24/2010
10090688-005A	BG-AirA-092110	1089 L	9/21/2010 8:00:00 AM	9/24/2010
10090688-006A	BG-AirB-092110	1062 L	9/21/2010 5:00:00 PM	9/24/2010
10090688-007A	BG-AirD-092110	1050 L	9/21/2010 5:00:00 PM	9/24/2010
10090688-008A	BG-AirE-092110	1029 L	9/21/2010 5:00:00 PM	9/24/2010
10090688-009A	BG-AirBlank1-092110			9/24/2010

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-0

Date Reported: September 29, 2010 **Date Printed:** September 29, 2010

Client:	Weston Solutions

10090688 **Project:** Bautsch-Gray Mine RV, Galena, IL Lab Order:

Lab ID: 10090688-001 **Collection Date:** 9/20/2010 8:30:00 AM

Client Sample ID: BG-AirA-092010 Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	I	Date Analyzed	
Metals in Air	N7300			Prep	Date: <b>9/28</b> /	/2010	Analyst: <b>JG</b>	
Arsenic	ND	0.79		μg/m³	10		9/28/2010	
Lead	ND	0.79		µg/m³	10		9/28/2010	
Particulates in Air	NIOSH05	<b>500</b>		Prep	Date: <b>9/24</b>	/2010	Analyst: <b>JP</b>	
Particulates in Air	ND	0.16	*	mg/m³	1		9/27/2010	

Lab ID: 10090688-002 **Collection Date:** 9/20/2010 5:00:00 PM

Client Sample ID: BG-AirB-092010 Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Metals in Air	N7300			Prep	Date: <b>9/28/20</b> 1	I <b>0</b> Analyst: <b>JG</b>
Arsenic	ND	1.2		µg/m³	10	9/28/2010
Lead	ND	1.2		µg/m³	10	9/28/2010
Particulates in Air	NIOSH0	500		Prep	Date: <b>9/24/20</b> 1	IO Analyst: JP
Particulates in Air	ND	0.24	*	mg/m³	1	9/27/2010

Lab ID: 10090688-003 **Collection Date:** 9/20/2010 5:00:00 PM

Client Sample ID: BG-AirD-092010 Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Metals in Air	N7300			Prep	Date: <b>9/28/20</b> 1	10 Analyst: JG
Arsenic	ND	0.69		μg/m³	10	9/28/2010
Lead	ND	0.69		µg/m³	10	9/28/2010
Particulates in Air	NIOSH0	500		Prep	Date: <b>9/24/20</b> 1	10 Analyst: JP
Particulates in Air	ND	0.14	*	mg/m³	1	9/27/2010

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

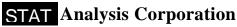
Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-0

**Date Reported:** September 29, 2010 **Date Printed:** September 29, 2010

Client:	Weston Solutions
Chent:	Weston Solutions

Project: Bautsch-Gray Mine RV, Galena, IL Lab Order: 10090688

**Lab ID:** 10090688-004 **Collection Date:** 9/20/2010 5:00:00 PM

Client Sample ID: BG-AirE-092010 Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Metals in Air	N7300			Prep	Date: <b>9/28/201</b>	O Analyst: JG
Arsenic	ND	0.69		μg/m³	10	9/28/2010
Lead	ND	0.69		µg/m³	10	9/28/2010
Particulates in Air	NIOSH05	500		Prep	Date: 9/24/201	O Analyst: JP
Particulates in Air	ND	0.14	*	mg/m³	1	9/27/2010

**Lab ID:** 10090688-005 **Collection Date:** 9/21/2010 8:00:00 AM

Client Sample ID: BG-AirA-092110 Matrix: Air

Analyses	Result	KL	Qualifier	Units	DF	Date Analyzed	
Metals in Air	N7300			Prep	Date: <b>9/28/201</b>	Analyst: JG	
Arsenic	ND	0.92		µg/m³	10	9/28/2010	
Lead	ND	0.92		µg/m³	10	9/28/2010	
Particulates in Air	NIOSH0	500		Prep	Date: <b>9/24/201</b>	0 Analyst: <b>JP</b>	
Particulates in Air	ND	0.18	*	ma/m³	1	9/27/2010	

**Lab ID:** 10090688-006 **Collection Date:** 9/21/2010 5:00:00 PM

Client Sample ID: BG-AirB-092110 Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Metals in Air	N7300			Prep	Date: <b>9/28/201</b>	Analyst: JG
Arsenic	ND	0.94		µg/m³	10	9/28/2010
Lead	ND	0.94		µg/m³	10	9/28/2010
Particulates in Air	NIOSH0	500		Prep	Date: <b>9/24/201</b>	<b>0</b> Analyst: <b>JP</b>
Particulates in Air	ND	0.19	*	mg/m³	1	9/27/2010

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

2242 West Harrison St., Suite 200, Chicago, IL 60612-3766 Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-0

**Date Reported:** September 29, 2010 **Date Printed:** September 29, 2010

Client:	Weston Solutions
Valicinia.	M ESTON POLITIONS

Project: Bautsch-Gray Mine RV, Galena, IL Lab Order: 10090688

**Lab ID:** 10090688-007 **Collection Date:** 9/21/2010 5:00:00 PM

Client Sample ID: BG-AirD-092110 Matrix: Air

Analyses	Result	KL	Qualifier	Units	DF	Date Analyzed
Metals in Air	N7300	)		Prep	Date: <b>9/28/201</b>	O Analyst: JG
Arsenic	ND	0.95		µg/m³	10	9/28/2010
Lead	ND	0.95		µg/m³	10	9/28/2010
Particulates in Air	NIOSH	10500		Prep	Date: 9/24/201	<b>0</b> Analyst: <b>JP</b>
Particulates in Air	ND	0.19	*	mg/m³	1	9/27/2010

**Lab ID:** 10090688-008 **Collection Date:** 9/21/2010 5:00:00 PM

Client Sample ID: BG-AirE-092110 Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Metals in Air	N7300			Prep	Date: <b>9/28/20</b>	10 Analyst: JG
Arsenic	ND	0.97		µg/m³	10	9/28/2010
Lead	ND	0.97		µg/m³	10	9/28/2010
Particulates in Air	NIOSH0	500		Prep	Date: <b>9/24/20</b>	10 Analyst: JP
Particulates in Air	ND	0.19	*	mg/m³	1	9/27/2010

Lab ID:10090688-009Collection Date:Client Sample ID:BG-AirBlank1-092110Matrix:Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Metals in Air	N7300			Prep	Date: 9/28/201	O Analyst: JG
Arsenic	ND	1		μg/filter	10	9/28/2010
Lead	ND	1		µg/filter	10	9/28/2010
Particulates in Air	NIOSH0	500		Prep	Date: 9/24/201	0 Analyst: JP
Particulates in Air	ND	0.2	*	mg/filter	1	9/27/2010

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

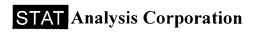
R - RPD outside accepted recovery limits

E - Value above quantitation range

STAT Analysis Corporation 2242 W. Harrison, Suite 200, Chicago, Illinois 60612 Phone: (312) 733-0551 Fax: (312) 733-2386

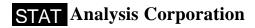
e-rnail address: STATinfo(a STAT) nalysis com AIHA, NVLAP and NELAP accredited

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# Sample Receipt Checklist

Client Name WESTON CHICAGO		Date and Time	e Received:	9/24/2010 9:30:00 AM
Work Order Number 10090688		Received by:	CDF	. 1
Checklist completed by: Signature Date	1/24/10	Reviewed by:	CG	9 27 110 Date
Matrix: Carrier name:	FedEx			
Shipping container/cooler in good condition?	Yes 🗸	No 🗌	Not Present	
Custody seals intact on shippping container/cooler?	Yes	No 🗌	Not Present	$\checkmark$
Custody seals intact on sample bottles?	Yes	No 🗌	Not Present	$\checkmark$
Chain of custody present?	Yes 🗸	No 🗌		
Chain of custody signed when relinquished and received?	Yes 🗸	No 🗌		
Chain of custody agrees with sample labels/containers?	Yes 🗹	No 🗌		
Samples in proper container/bottle?	Yes 🗹	No 🗌		
Sample containers intact?	Yes 🗹	No 🗌		
Sufficient sample volume for indicated test?	Yes 🗸	No 🗌		
All samples received within holding time?	Yes 🗸	No 🗌		
Container or Temp Blank temperature in compliance?	Yes 🗸	No 🗌	Tempe	erature Ambient °C
Water - VOA vials have zero headspace? No VOA vials subn	nitted 🗷	Yes 🔄	No 🏥	
Water - Samples pH checked?	Yes 📳	No 🖾	Checked by	r.
Water - Samples properly preserved?	Yes 🔝	No 📧	pH Adjusted	?
Any No response must be detailed in the comments section below.	. — — —		·· -	
Comments:				
			-	
Client / Person Date contacted:		Conta	acted by:	
Response:				



# PREP BATCH REPORT

Prep Start Date: 9/28/2010 3:02:00 P

Prep End Date:

Prep Factor Units:

Prep Batch 51848 Prep Code: M\_AIR\_PR Technician: JMS mL/

Sample ID	Matrix	рН	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
IRBA1 9/28/10			1	0	0	0.01	0.010	9/28/2010	9/28/2010
IMBA1 9/28/10			1	0	0	0.01	0.010	9/28/2010	9/28/2010
ILCSA1 9/28/10			1	0	0	0.01	0.010	9/28/2010	9/28/2010
ILCSDA1 9/28/10		-	1	0	0	0.01	0.010	9/28/2010	9/28/2010
10090688-001A	Air	·	1.266	0	0	0.01	0.008	9/28/2010	9/28/2010
10090688-002A	Air		0.84	0	0	0.01	0.012	9/28/2010	9/28/2010
10090688-003A	Air		1.44	0	0	0.01	0.007	9/28/2010	9/28/2010
10090688-004A	Air		1.446	0	0	0.01	0.007	9/28/2010	9/28/2010
10090688-005A	Air		1.089	0	0	0.01	0.009	9/28/2010	9/28/2010
10090688-006A	Air		1.062	0	0	0.01	0.009	9/28/2010	9/28/2010
10090688-007A	Air		1.05	0	0	0.01	0.010	9/28/2010	9/28/2010
10090688-008A	Air		1.029	0	0	0.01	0.010	9/28/2010	9/28/2010
10090688-009A	Air		1	0	0	0.01	0.010	9/28/2010	9/28/2010

**CLIENT:** Weston Solutions

**Work Order:** 10090688

ANALYTICAL QC SUMMARY REPORT

**Project:** Bautsch-Gray Mine RV, Galena, IL

**BatchID:** 51848

Sample ID Client ID:	IRBA1 9/28/10 ZZZZZ	SampType: Batch ID:			le: M_AIR o: N7300	Units: µg		Prep Date: Analysis Date			Run ID: IC SeqNo: 17	PMS-2_1009 60106	28A
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit F	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic Lead			ND 0.0095	1.0 1.0									J
Sample ID Client ID:	IMBA1 9/28/10 ZZZZZ	SampType: Batch ID:			le: M_AIR o: N7300	Units: µg/	filter	Prep Date: Analysis Date			Run ID: IC SeqNo: 17	PMS-2_1009 60107	28A
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit H	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic Lead			ND 0.0101	1.0 1.0									J
Sample ID	ILCSA1 9/28/10	SampType:	LCS	TestCod	le: M_AIR	Units: µg/	filter	Prep Date:	9/28/20	)10	Run ID: IC	PMS-2_1009	28A
Client ID:													
Olloric ID.	ZZZZZ	Batch ID:	51848	TestN	o: <b>N7300</b>			Analysis Date	9/28/20	010	SeqNo: 17	60108	
Analyte	22222	Batch ID:	51848 Result	TestN PQL	o: <b>N7300</b> SPK value	SPK Ref Val	%REC	•		RPD Ref Val	SeqNo: <b>17</b> %RPD	60108 RPDLimit	Qual
	22222	Batch ID:				SPK Ref Val 0 0.0101	%REC 91.9 92.6	•			•		Qual
Analyte Arsenic		SampType: Batch ID:	Result 4.594 4.642  LCSD	PQL 1.0 1.0 TestCod	SPK value	0	91.9 92.6	LowLimit H	120 120 120	RPD Ref Val 0 0	%RPD 0 0	RPDLimit PMS-2_1009	
Analyte Arsenic Lead Sample ID	ILCSDA1 9/28/10	SampType:	Result 4.594 4.642  LCSD	PQL 1.0 1.0 TestCod	SPK value  5 5 5	0 0.0101	91.9 92.6	LowLimit B 80 80 Prep Date: Analysis Date	120 120 9/28/20 9/28/20	RPD Ref Val 0 0	%RPD 0 0 Run ID: IC	RPDLimit PMS-2_1009	

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

\* - Non Accredited Parameter

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

H/HT - Holding Time Exceeded

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

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Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP 1L300001; AIHA 101160; NVLAP LabCode 101202-0

STAT Project No: 10090686

September 28, 2010

Weston Solutions 20 North Wacker Drive Suite 1210

Chicago, IL 60606

Telephone: (312) 424-3339 Fax: (312) 424-3330

RE: Bautsch-Gray Mine RV, Galena, IL

Dear Lisa Graczyk:

STAT Analysis received 4 samples for the referenced project on 9/24/2010 9:30:00 AM. The analytical results are presented in the following report.

All analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met AIHA, EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. Sample acceptance criteria has been met unless noted in the Case Narrative or Sample Receipt Checklist. If required, an estimate of uncertainty for the analyses can be provided. Sample results have not been corrected for contamination based on field blank or other analytical blank, unless noted in the case narrative.

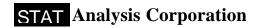
Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely,
Latia Sia

Catia Giannini

Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory.



Date: September 28, 2010

**Client:** Weston Solutions

Project: Bautsch-Gray Mine RV, Galena, IL Work Order Sample Summary

**Lab Order:** 10090686

Lab Sample ID	Client Sample ID	Tag Number	<b>Collection Date</b>	Date Received
10090686-001A	BG-AirA-091710	1647 L	9/17/2010 5:00:00 PM	9/24/2010
10090686-002A	BG-AirB-091710	1473 L	9/17/2010 5:00:00 PM	9/24/2010
10090686-003A	BG-AirC-091710	840 L	9/17/2010 5:00:00 PM	9/24/2010
10090686-004A	BG-AirD-091710	1599 L	9/17/2010 5:00:00 PM	9/24/2010

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202-0

**Date Reported:** September 28, 2010 **Date Printed:** September 28, 2010

Client:	Weston Solutions
Chent:	weston Solutions

Project: Bautsch-Gray Mine RV, Galena, IL Lab Order: 10090686

**Lab ID:** 10090686-001 **Collection Date:** 9/17/2010 5:00:00 PM

Client Sample ID: BG-AirA-091710 Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed	
Metals in Air	N7300			Prep	Date: <b>9/27/201</b>	Analyst: JG	
Arsenic	ND	0.61		μg/m³	10	9/27/2010	
Lead	ND	0.61		µg/m³	10	9/27/2010	
Particulates in Air	NIOSH	0500		Prep	Date: <b>9/24/201</b>	0 Analyst: JP	
Particulates in Air	ND	0.12	*	mg/m³	1	9/27/2010	

**Lab ID:** 10090686-002 **Collection Date:** 9/17/2010 5:00:00 PM

Client Sample ID: BG-AirB-091710 Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Metals in Air	N7300			Prep	Date: <b>9/27/20</b>	10 Analyst: JG
Arsenic	ND	0.68		µg/m³	10	9/27/2010
Lead	ND	0.68		µg/m³	10	9/27/2010
Particulates in Air	NIOSH0	500		Prep	Date: <b>9/24/20</b>	10 Analyst: JP
Particulates in Air	ND	0.14	*	mg/m³	1	9/27/2010

**Lab ID:** 10090686-003 **Collection Date:** 9/17/2010 5:00:00 PM

Client Sample ID: BG-AirC-091710 Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Metals in Air	N7300			Prep	Date: <b>9/27/201</b>	Analyst: JG
Arsenic	ND	1.2		μg/m³	10	9/27/2010
Lead	ND	1.2		µg/m³	10	9/27/2010
Particulates in Air	NIOSH05	500		Prep	Date: <b>9/24/201</b>	0 Analyst: JP
Particulates in Air	ND	0.24	*	mg/m³	1	9/27/2010

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



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**Date Reported:** September 28, 2010 **Date Printed:** September 28, 2010

**Client:** Weston Solutions

Project: Bautsch-Gray Mine RV, Galena, IL Lab Order: 10090686

**Lab ID:** 10090686-004 **Collection Date:** 9/17/2010 5:00:00 PM

Client Sample ID: BG-AirD-091710 Matrix: Air

Result Qualifier Units RLDF **Analyses Date Analyzed** Metals in Air N7300 Prep Date: 9/27/2010 Analyst: JG Arsenic ND 0.63 µg/m³ 10 9/27/2010 Lead ND 0.63 10 9/27/2010 µg/m³ Particulates in Air **NIOSH0500** Prep Date: 9/24/2010 Analyst: JP Particulates in Air ND 0.13 mg/m<sup>3</sup> 9/27/2010

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

HT - Sample received past holding time

\* - Non-accredited parameter

Qualifiers:

RL - Reporting / Quantitation Limit for the analysis

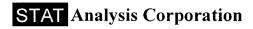
S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

STAT Analysis Corporation 2242 W. Harrison, Suive 200, Chicago, Illinois 60612 Phone: (312) 733-0551 Fax: (312) 733-2386 e-mail address: STATinfo@STATAnalysis.com AIHA, NVLAP and NELAP accredited

CHAIN OF CUSTODY RECORD	ECORD $N^{0}$ : 833611	Page: J of J
Company: WESTE 1 Secret Con.		
Client Tracking No.:		
n <sub>Q</sub>	1300	
Sampler(s): JETE BEAN ABSEL (108 284-2480)		
Report To: 上いろん かんが えっぱん Phone:		Tim Around
Fax:		
QC Level: 1 2 <b>X</b> 3 4 e-mail:		Results Needed:
Client Sample Number/Description: Date Taken Taken Sample Sample Sample Number/Description:		mu/pm
× o ×		-
tebroarie (		
1. AIR.C. Chine		7 <b>0</b> \$%
BG- AIRV CANTIO + 1 X X + X X		F00 71,1,51 "
Date/Time c4/14/10 20:30 Comm		Laboratory Work Order No.:
Jacob Date/Time: 1101 1/2/10 152	34-hour 1.41	10070686
The state of the s		Received on Ice: Yes No X
Date/Time:	Preservation Code: A = None B = HNO, C = NaOH D = H SO, E = 1071 E = \$0350000 C = Other	Temperature: 1 / fC
	an authorized in	to Olivio



# Sample Receipt Checklist

Client Name WESTON CHICAGO		Date and Tim	e Received:	9/24/2010 9:30:00 AM
Work Order Number 10090686	7	Received by:	CDF	,
Checklist completed by: Signature Date	स्थि/10	Reviewed by:	Initials	9 27 10 Date
Matrix: Carrier name:	<u>FedEx</u>			
Shipping container/cooler in good condition?	Yes 🗹	No 🗌	Not Present	
Custody seals intact on shippping container/cooler?	Yes	No 🗌	Not Present	
Custody seals intact on sample bottles?	Yes	No 🗌	Not Present	
Chain of custody present?	Yes 🗸	No 🗌		
Chain of custody signed when relinquished and received?	Yes 🗸	No 🗌		
Chain of custody agrees with sample labels/containers?	Yes 🗸	No 🗌		
Samples in proper container/bottle?	Yes 🗸	No 🗌		
Sample containers intact?	Yes 🗸	No 🗌		
Sufficient sample volume for indicated test?	Yes 🗹	No 🗌		
All samples received within holding time?	Yes 🗹	No 🗌		
Container or Temp Blank temperature in compliance?	Yes 🗸	No 🗌	Temperati	ure Ambient °C
Water - VOA vials have zero headspace? No VOA vials subr	mitted	Yes	No 🗟	
Water - Samples pH checked?	Yes 🔍	No া	Checked by:	
Water - Samples properly preserved?	Yes 🖪	No 🔠	pH Adjusted?	
Any No response must be detailed in the comments section below.				
Comments:				
Client / Person contacted:  Date contacted:		Conta	acted by:	
Response:				

# PREP BATCH REPORT

Prep Start Date: 9/27/2010 1:43:27 P Prep End Date: 9/27/2010 2:02:00 P

Prep Factor Units:

Prep Batch 51821 Prep Code: M\_AIR\_PR Technician: JMS mL/

Sample ID	Matrix	рН	SampAmt	Sol Added	Sol Recov	Fin Vol	factor	PrepStart	PrepEnd
IRBA1 9/27/10			1	0	0	0.01	0.010	9/27/2010	9/27/2010
IMBA1 9/27/10			1	0	0	0.01	0.010	9/27/2010	9/27/2010
ILCSA1 9/27/10			1	0	0	0.01	0.010	9/27/2010	9/27/2010
ILCSDA1 9/27/10			1	0	0	0.01	0.010	9/27/2010	9/27/2010
10090686-001A	Air		1.647	0	0	0.01	0.006	9/27/2010	9/27/2010
10090686-002A	Air		1.473	0	0	0.01	0.007	9/27/2010	9/27/2010
10090686-003A	Air		0.84	0	0	0.01	0.012	9/27/2010	9/27/2010
10090686-004A	Air	•	1.599	0	0	0.01	0.006	9/27/2010	9/27/2010

**CLIENT:** Weston Solutions

Bautsch-Gray Mine RV, Galena, IL

**Work Order:** 10090686

**Project:** 

# ANALYTICAL QC SUMMARY REPORT

**BatchID: 51821** 

Sample ID	IRBA1 9/27/10	SampType:	MBLK	TestCod	e: M_AIR	Units: µg		Prep Date	e: <b>9/27/2</b>	010	Run ID: IC	PMS_100927	7A
Client ID:	ZZZZZ	Batch ID:	51821	TestN	o: <b>N7300</b>			Analysis Dat	e: <b>9/27/2</b>	010	SeqNo: 17	'59191	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic			0.0279	1.0									J
Lead			ND	1.0									
Sample ID	IMBA1 9/27/10	SampType:	MBLK	TestCod	e: M_AIR	Units: µg	/filter	Prep Date	e: <b>9/27/2</b> 0	010	Run ID: IC	PMS_100927	7A
Client ID:	ZZZZZ	Batch ID:	51821	TestN	o: <b>N7300</b>			Analysis Dat	e: <b>9/27/2</b>	010	SeqNo: 17	′59192	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic			0.0319	1.0									J
Lead			ND	1.0									
Sample ID	ILCSA1 9/27/10	SampType:	LCS	TestCod	e: M_AIR	Units: µg	/filter	Prep Date	e: <b>9/27/2</b>	010	Run ID: IC	PMS_100927	7A
Client ID:	ZZZZZ	Batch ID:	51821	TestN	o: <b>N7300</b>			Analysis Dat	e: <b>9/27/2</b>	010	SeqNo: 17	′59193	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic			4.833	1.0	5	0.0319	96	80	120	0	0		
Lead			4.967	1.0	5	0	99.3	80	120	0	0		
Sample ID	ILCSDA1 9/27/10	SampType:	LCSD	TestCod	e: M_AIR	Units: µg	/filter	Prep Date	e: <b>9/27/2</b>	010	Run ID: IC	PMS_100927	7A
Client ID:	ZZZZZ	Batch ID:	51821	TestN	o: <b>N7300</b>			Analysis Dat	e: <b>9/27/2</b>	010	SeqNo: 17	′59194	
Analyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic			4.781	1.0	5	0.0319	95	80	120	4.833	1.08	20	
Lead			4.892	1.0	5	0	97.8	80	120	4.967	1.52	20	

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

\* - Non Accredited Parameter

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

H/HT - Holding Time Exceeded

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

# ATTACHMENT G RESIDENTIAL WELL WATER SAMPLING RESULTS

# Table 1 Residential Well Water Sampling Results Bautsch-Gray Mine Site Jo Daviess County, Illinois

	Sample ID		BG-RW01-080310	BG-RW01-080310D	BG-746-102810	BG-842-102810	BG-842-102810D	BG-861-102810D
	Sampling Date		8/3/2010	8/3/2010	10/28/2010	10/28/2010	10/28/2010	10/28/2010
	Sample Matrix	U.S. EPA	Water	Water	Water	Water	Water	Water
Parameter	Sampling Location	MCL	746 S. Blackjack Rd.	Field Duplicate of RW01	746 S. Blackjack Rd.	842 S. Blackjack Rd.	Field Duplicate of 842	861 S. Blackjack Rd.
pН	SU	6.5 to 8.5 <sup>a</sup>	NA	NA	NA	NA	NA	NA
Metals								
Arsenic, Total	mg/L	0.01	< 0.004	< 0.004	< 0.010	< 0.010	< 0.010	< 0.010
Cadmium, Total	mg/L	0.005	< 0.002	< 0.002	NA	NA	NA	NA
Copper, Total	mg/L	1.3	NA	NA	NA	NA	NA	NA
Lead, Total	mg/L	0.015	0.0024	0.0025	< 0.0075	< 0.0075	< 0.0075	< 0.0075

	Sample ID		BG-746-071111	BG-746-071611	BG-746-TAP01-081111	BG-746-TAP01-081111D	BG-746-TAP02-081111	BG-746-TAP03-081111
	Sampling Date		7/11/2011	7/16/2011	8/3/2010	8/3/2010	8/3/2010	October 6, 2009
	Sample Matrix		Water	Water	Water	Water	Water	Water
					746 S. Blackjack Rd.;		746 S. Blackjack Rd.;	
		U.S. EPA			kitchen sink faucet with		kitchen sink faucet with	746 S. Blackjack Road;
Parameter	Sampling Location	MCL	746 S. Blackjack Rd.	746 S. Blackjack Rd.	treatment system off	Field Duplicate of TAP01	treatment system on	outside spigot
pН	SU	6.5 to 8.5 <sup>a</sup>	NA	5.2	5.6	6.2	6.8	6.7
Metals								
Arsenic, Total	mg/L	0.01	< 0.004	NA	NA	NA	NA	NA
Cadmium, Total	mg/L	0.005	NA	NA	NA	NA	NA	NA
Copper, Total	mg/L	1.3	NA	0.065	NA	NA	NA	NA
Lead, Total	mg/L	0.015	0.0052 U	NA	NA	NA	NA	NA

Notes:

**Bolded results** exceed the reporting limit.

Yellow highlighted results exceed the National Secondary Drinking Water Regulation standard.

< = Less than

MCL = Maximum Contaminant Level

mg/L = Milligram per liter

NA = Not analyzed

SU = Standard unit

U = Analyte not detected above the reporting limit

U.S. EPA = United States Environmental Protection Agency

a There is no MCL for pH. The limit specified is the National Secondary Drinking Water Regulation standard and is non-enforceable.